



## **PROJECT SUMMARY REPORT**

### **FORMER SCHMIDT'S BREWERY**

Bounded by N. 2nd St., Girard Ave., Hancock St., Wildey St., Germantown Ave.  
City of Philadelphia  
Philadelphia County, Pennsylvania

**July 29, 2008**

**REPSG Project Reference No. 6651.130.03**

### **PREPARED FOR:**

**Northern Liberties Development, LP**  
969 North Second Street  
Philadelphia, PA 19123

*This plan represents REPSG's knowledge of conditions on the subject site at the time of preparation.*

### **PREPARED BY:**

---

Adam C. Rose  
Environmental Risk Analyst

### **REVIEWED BY:**

  
Charlene Drake  
Director of Operations

## TABLE OF CONTENTS

<b>1.0</b>	<b>PURPOSE AND SCOPE.....</b>	<b>1</b>
<b>2.0</b>	<b>BACKGROUND.....</b>	<b>2</b>
2.1	REPORT ORGANIZATION.....	3
<b>3.0</b>	<b>SITE DESCRIPTION .....</b>	<b>4</b>
3.1	SITE LOCATION .....	4
3.2	CURRENT SITE DEVELOPMENT AND USAGE.....	4
3.3	PROPOSED SITE REDEVELOPMENT AND USAGE .....	6
3.4	SITE OWNERSHIP AND OPERATIONAL HISTORY .....	7
3.5	PHYSICAL SETTING .....	8
<b>4.0</b>	<b>SUMMARY OF PRIOR INVESTIGATIONS.....</b>	<b>13</b>
4.1	BASELINE REMEDIAL INVESTIGATION WORKPLAN (JANUARY 25, 2001).....	13
4.2	PADEP LRP COMBINED REPORT (JANUARY 31, 2008).....	13
<b>5.0</b>	<b>SITE INVESTIGATION .....</b>	<b>20</b>
5.1	PCB SOIL ANALYTICAL RESULTS IN HIGH OCCUPANCY AREAS.....	20
5.2	PCB SOIL ANALYTICAL RESULTS IN LOW OCCUPANCY AREAS .....	28
<b>6.0</b>	<b>SAMPLING PLAN.....</b>	<b>35</b>
6.1	PROPOSED DELINEATION .....	35
6.2	INVESTIGATION OF INFILLED SOIL .....	37

## LIST OF REPORT TABLES

Table 1: Chain of Ownership, Parcel 8-N-11 Lot 23, 160-186 Girard Avenue.....	7
Table 2: Groundwater Elevations .....	10
Table 3: Areas of Concern .....	13
Table 4: Soil Samples in High Occupancy Areas and Total PCBs >10 ppm.....	23
Table 5: Soil Samples in High Occupancy Areas and Total PCBs ≤10 ppm.....	25
Table 6: Soil Samples in Low Occupancy Areas and Total PCBs >100 ppm .....	29
Table 7: Soil Samples in Low Occupancy Areas and Total PCBs ≤100 ppm .....	31

## LIST OF REPORT FIGURES

Figure 1: Site Diagram .....	5
Figure 2: Monitoring Well Location Map .....	11
Figure 3: Areas of Concern.....	14
Figure 4: Proposed High Occupancy Developments .....	21
Figure 5: Soil Samples in High Occupancy Areas and Total PCBs >10 ppm .....	24
Figure 6: Soil Samples in High Occupancy Areas and Total PCBs ≤10 ppm .....	27
Figure 7: Proposed Low Occupancy Developments.....	28
Figure 8: Soil Samples in Low Occupancy Areas and Total PCBs >100 ppm .....	30
Figure 9: Soil Samples in Low Occupancy Areas and Total PCBs ≤100 ppm .....	34
Figure 10: Proposed Delineation Areas .....	36
Figure 11: Proposed Delineation Grid for Shallow Locations.....	37
Figure 12: Infilled Soil Investigation.....	38

## APPENDICES

Appendix A .....	Additional Figures
Appendix B .....	Analytical Summary Tables
Appendix C .....	Disposal Documentation
Appendix D .....	REPSG's Standard Operating Procedures
Appendix E .....	NTH Geotechnical Report, Soil Boring Logs, and Well Installation Logs
Appendix F .....	Laboratory Analytical Data Reports
Appendix G .....	Prior Reporting
Appendix H .....	Proposed Site Redevelopment Plan

## 1.0 PURPOSE AND SCOPE

The purpose of this report is to provide the United States Environmental Protection Agency (EPA) Region 3 Toxic Substances and Control Act (TSCA) program with a summary of the environmental investigation and remediation of polychlorinated biphenyls (PCBs) in soil which has been performed to date at the site known as Former Schmidt's Brewery ("Site"). This report was prepared on behalf of Northern Liberties Development, LP ("NLD") by React Environmental Professional Services Group, Inc. ("REPSG"). The investigation and remediation to date has been performed under the oversight of the Pennsylvania Department of Environmental Protection (PADEP) Land Recycling Program (LRP) established by the Pennsylvania Land Recycling and Environmental Remediation Standards Act ("Act 2"). The results of this investigation and remediation are summarized in the Combined Remedial Investigation Report and Cleanup Plan (Act 2 Combined Report) submitted to the PADEP on January 31, 2008 (which describes investigation and remediation of PCBs as well as other compounds of concern). In a May 7, 2008 letter, PADEP concurred with the findings in the Act 2 Combined Report that soils impacted by PCBs have attained Pennsylvania's Statewide Health Standards for residential exposure.

This report presents the remaining PCB issues at the Site based on the TSCA framework in 40 C.F.R. Part 761.

## 2.0 BACKGROUND

This Site is bounded by Girard Avenue to the north, Hancock Street to the northeast, Wildey Street to the southeast, Germantown Avenue to the southwest, and North 2nd Street to the west in the Northern Liberties neighborhood of Philadelphia, Pennsylvania and is the location of the former Schmidt's Brewery. The former Schmidt's Brewery was situated on 9.4 acres. NLD acquired the property via Sheriff's sale on February 2, 2000. Prior to NLD's acquisition of the property, transformers associated with the former Schmidt's operations were reportedly removed from the Site. From 2000-2001, NLD undertook remediation and demolition of the vacant and abandoned buildings. The Site is currently vacant and former above grade structures have been demolished.

NLD proposes to redevelop the Site as a mixed commercial and residential complex. This mixed commercial and residential complex will add vitality to the section of North 2<sup>nd</sup> Street between Wildey Street and Girard Avenue by bringing a significant increase in residential housing, approximately 600 units, retail space, including a 53,190 square foot grocery store, an urban park, and notable parking and traffic control measures to facilitate this new vitality, and to help alleviate some of the current traffic control stresses in the neighborhood. These functions are essential to development in Northern Liberties, promoting the initiatives set out by the North Liberties Neighborhood Association (NLNA) in their Northern Liberties Neighborhood Plan, dated November 2005, and the Northern Liberties Waterfront Plan, dated April 2007, which include the "Re-establish[ment of] 2<sup>nd</sup> Street as the heart of Northern Liberties," "Attract balanced growth with both development and open space," and to add to the public framework of "Green Space, Green Links, and Apertures." Pursuant to PADEP LRP procedures, the City of Philadelphia requested the preparation and implementation of a Public Involvement Plan ("PIP") in September 2004 for the investigation and remediation work at the Site. NLD has developed and implemented a PIP with several elements. Highlights of the PIP and the PADEP LRP submittals are presented below:

NLD has implemented an extensive public involvement process under the PADEP LRP. Two (2) drafts of the Act 2 Combined Report were prepared. The Act 2 Combined Report detailed the investigation of soil and groundwater, fate and transport analysis, prior remediation, and proposed a capping plan to address benzo(a)pyrene in soil at the site. The first draft was made available at a public repository for public review and comment, and three (3) separate, well-attended public meetings were held in November and December 2005 and January 2006 to present the findings and receive public input. The first draft of the Act 2 Combined Report, which included responses to all public comments received, was submitted to PADEP in March 2006. In response to a June 2006 letter from PADEP providing comments on the Act 2 Combined Report, additional field work was conducted and the document was revised. The revised draft was again made available at a public repository for public review and comment, and was submitted to PADEP, with responses to additional public comments received, on January 31, 2008. The PADEP response letter to the revised Act 2 Combined Report, dated May 7, 2008, is attached. A full narrative of the PIP, including a comment-response document and transcripts of public meetings, is available as part of the January 31, 2008 Act 2 Combined Report.

## 2.1 Report Organization

Organization of this report is as follows:

- **Section 1** provides an introduction to the Site and the scope and objective of this reporting.
- **Section 2** provides site background and the report organization.
- **Section 3** includes a Site description providing general site location, physical setting and ownership and site use history. This section also generally describes the current proposed redevelopment.
- **Section 4** provides a summary of the prior PCB investigations at the Site.
- **Section 5** presents the site investigation data.
- **Section 6** presents a proposed sampling plan for additional investigation of specific PCB impacts at the site.

### **3.0 SITE DESCRIPTION**

Information presented in this section has been developed from a review of prior environmental reporting, visual site reconnaissance, and research of Federal, State and local records.

#### **3.1 Site Location**

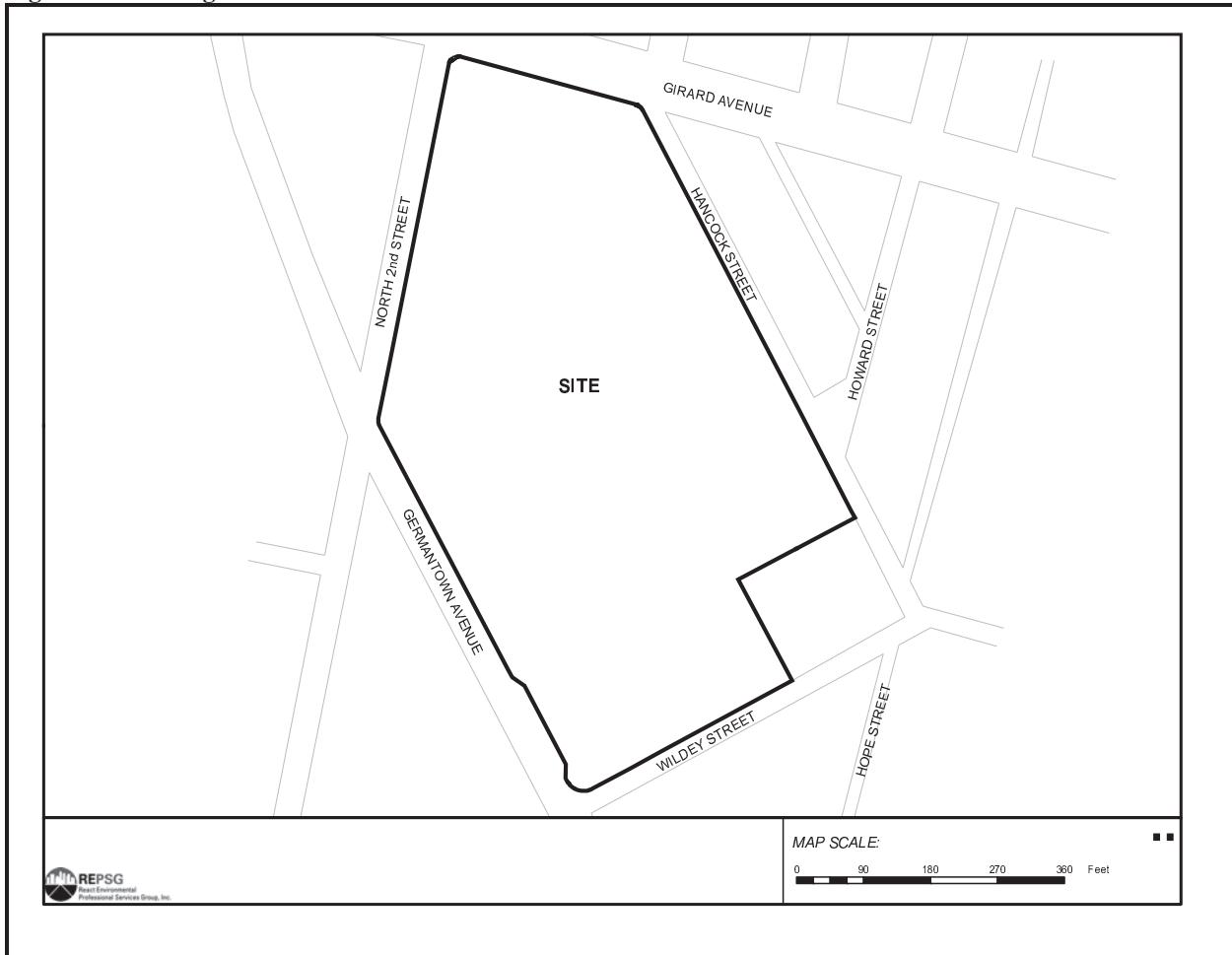
The Site is located at the corner of North 2nd Street and Girard Avenue. It is bounded by Girard Avenue to the north, Hancock Street to the northeast, Wildey Street and former Chenango Street to the southeast, Germantown Avenue to the southwest, and North 2nd Street to the west.

As identified by City of Philadelphia tax mapping, the 9.4-acre Site is comprised of approximately 170 individual tax lots. Geographic coordinates of the Site, referencing the southeast corner of the intersection of North 2nd Street and Girard Avenue, are 242544 N, 2699747 E (NAD 83 Pennsylvania State Plane, South Zone, US Feet) / 39.9693291 N. Latitude, 75.1395516 W. Longitude. Site location is shown on the attached **Topographic Map (Appendix A)**.

#### **3.2 Current Site Development and Usage**

The Site is currently vacant. All historical on-site structures have been demolished. At the commencement of the investigation, the only remaining features of the Brewery complex were subgrade basement slabs and foundations. The only subgrade features identified as a potential Areas of Concern ("AOC") present at the time of the investigation were the subgrade basement slab of Building #11, two concrete vaults associated with Building #11 and the basement slab of Building #21. These features were demolished by REPSG during the course of the investigation and remediation. On-site access is restricted by chain-link fence along the perimeter of the entire Site. The buildings in the vicinity are comprised of a mixture of residential and commercial/light industrial properties. The area is zoned Area Shopping Center (ASC) as defined in the Philadelphia Zoning Code. Site boundaries are shown on the following page on **Figure 1** and on the attached **Site Diagram (Appendix A)**.

Figure 1: Site Diagram



### 3.3 Proposed Site Redevelopment and Usage

NLD proposes a mixed commercial/residential use for the Site. The current **Proposed Site Redevelopment Plan** is attached as **Appendix H**. This plan is subject to additional changes through the development approval process, however the plan has been supported by the community and is unlikely to undergo significant change relative to the building footprints and land usage. The current plan includes the following elements:

- A commercial building will be constructed along North 2<sup>nd</sup> Street and along Girard Avenue. This commercial building will include ground floor retail/commercial units, and a single commercial unit, a supermarket, located above these commercial units at the corner of the intersection between North 2<sup>nd</sup> Street and Girard Avenue.
- One 26-story mixed use commercial/residential tower will be constructed at the southwestern portion of the site, located roughly perpendicularly to, and approximately half way along Germantown Avenue. The ground floor of this building will be occupied by two commercial tenants and the lobby entrance for the rest of the building's residential units; the other 25 stories will contain approximately 260 residential units.
- One 16-story residential development, which will contain 229 units, will be constructed in the central portion of the Site, roughly parallel to Germantown Avenue and Hancock Street. This residential development includes residential units on the ground floor, and connects with another mixed use commercial/residential building. The lobby located at the northern portion of the building on the ground floor connects to the lobby of the mixed use commercial/residential building, which has a total of 33 residential units located across the four floors, and a single 2,050 square foot commercial unit, located near the intersection of North 2<sup>nd</sup> Street and Germantown Avenue; the most western portion of the building.
- One four-story residential development, which will contain approximately 39 units, will be constructed on the eastern portion of the Site, along Hancock Street.
- The southwestern portion of the site has been approved for commercial development; the proposed development at this portion of the site includes a parking garage.
- The interior portions of the Site to the north and east of the residential buildings located along North Second Street will be developed with a parking field; the interior space of the site located along Germantown Avenue will be developed with a landscaped park.

All buildings are planned to be constructed on-grade, without sub-grade spaces.

### 3.4 Site Ownership and Operational History

The former Schmidt's Brewery was constructed in the 1890's and operated from the turn of the century to the late 1980s. During its operation, the brewery expanded to occupy the area within Hancock Street, Wildey Street, Germantown Avenue and North 2<sup>nd</sup> Street, by constructing several buildings and parking lots over previous residential and commercial properties. Locations of former structures are depicted on the attached **Site Diagram (Appendix A)**.

REPSG conducted a search of city records to identify the chain of ownership for the former Schmidt's Brewery. Because the Site as a whole consisted of approximately 170 separate tax parcels, assembling the chain of title for every parcel was considered impractical. The following table, **Table 1**, lists the grantors, grantees and dates of title transfer of some of the former operational portion of the brewery, known as Parcel 8-N-11 Lot 23 with an address of 160-186 Girard Avenue, and consisting of approximately 4.89 acres:

**Table 1: Chain of Ownership, Parcel 8-N-11 Lot 23, 160-186 Girard Avenue**

Grantor	Grantee	Date
Charles Voss	George Weldmann	8/15/1866
George Weldmann	Frederick Anti	3/26/1879
The Heirs to the Estate of Frederick Anti	Henry C. Schmidt, Edward A. Schmidt, and Frederick Schmidt	3/2/1896
Henry C. Schmidt, Edward A. Schmidt, and Frederick Schmidt	Albert A. Starck	3/19/1896
Albert A. Starck	George A. Webber	12/21/1909
George A. Webber	Katherine Starck	12/21/1909
Albert A. and Catherine Starck	Robert Noble	9/28/1911
Robert Noble	C. Schmidt and Sons, Inc.	9/28/1911
Sheriff's Deed, C. Schmidt and Sons, Inc.	Northern Liberties Development, LP	2/4/2000

The former Schmidt's Brewery has been abandoned since cessation of operations (exact date unknown). NLD acquired the Site through a Sheriff's sale in February 2000. The vacant and abandoned on-site structures were demolished and certain remediation activities were conducted by NLD from 2000-2007.

NLD conducted removal activities of hazardous or potentially-hazardous materials, which are understood to have existed on the Site before NLD's ownership, prior to and during demolition work.<sup>1</sup>

Removal of materials, including asbestos, was performed by a third-party contractor under oversight by the City of Philadelphia's Public Health Department's Air Management Services, Asbestos Control Unit. Disposal included four (4) PCB drums and 1 capacitor pack by a hazardous material crew. All of these materials and all other materials that were exported off site were disposed of in accordance with all applicable regulations. Documentation of PCB-related disposal is presented in **Appendix C**.

<sup>1</sup> ePhase, Inc. Draft Limited Phase I Environmental Site Assessment, Former Schmidt's Brewery, 160-186 Girard Avenue, Philadelphia, PA. August 17, 1999.

### 3.5 Physical Setting

#### 3.5.1 Topography

According to USGS topographic mapping (7.5-minute series, Philadelphia, PA), the Site is located at an elevation ranging from 15 to 20 feet above Mean Sea Level (MSL). Site and area topography slope gently to the southeast toward the Delaware River.

#### 3.5.2 Geology and Hydrogeology

According to the Pennsylvania Geologic Survey (PGS), the Site and its vicinity are located within the Atlantic Coastal Plain Physiographic Province, near the fall line between the Coastal Plain and the Piedmont Physiographic Province. Regional geology is characterized by a layer of micaceous residuum over Quaternary Age Trenton Gravel Formation sediments consisting of unconsolidated gravelly sand. The underlying bedrock is composed of Pre-Cambrian Age rocks of the Wissahickon Formation. Rock types associated with the Wissahickon Formation are gneiss, mica schist and quartzite derived from sandstones and mudstones. The groundwater within the Wissahickon Formation exists in confined and unconfined conditions in the vicinity of the Site.

The Site is underlain by soil defined as “Urban Land” by the Soil Survey of Bucks and Philadelphia Counties, Pennsylvania (USDA Soil Conservation Service, 1975). The Soil Survey describes “Urban Land” as being too developed to make a practical identification of the native soils due to disturbance of the original soil material during construction activities and the addition of overlying fills.

**Site-Specific.** A subsurface geotechnical investigation of a portion of the Site was conducted by NTH Consultants, LTD. (NTH) on August 18, 2005. NTH installed eighteen (18) borings across the Site area south of Van Horn Street. Soil profiles from the borings indicated the presence of fill materials mostly from 8-13 feet below grade (fbg) underlain by native medium to very compact gravel and fine to coarse sand with traces of silt extending to 24-32 fbg. One test boring (B-006) exhibited fill materials deeper than the other borings at 17 fbg. Weathered mica schist of the Wissahickon Formation was encountered in many borings to depths greater than 43 fbg. A copy of the NTH geotechnical report is provided as an attachment in **Appendix E**.

Seven (7) groundwater monitoring wells were installed at the Site as part of the environmental investigations. The seven (7) installed wells include six monitoring wells (MW-001 – MW-006) installed by US Inspect on October 30-November 1, 2001, and one monitoring well (MW-007) installed by REPSG on June 27, 2007. Two of the monitoring wells have been abandoned (MW-002 and MW-004). These two wells were abandoned due to inaccurate groundwater level measurements and on-site construction, respectively. Hydrology data obtained from the well network of five (5) wells on July 25, 2007 (the most recent sampling date) indicates depth to groundwater ranges from 11.21 to 20.72 fbg and groundwater elevations (NAVD 88) range from 3.98 to 5.85 feet. Direction of groundwater flow is south/southeast, towards the Delaware River, which is located 0.4 miles from the Site. Well and groundwater elevations recorded on July 25, 2007 and historical hydrology data are summarized in **Table 2**, below. Well locations and groundwater elevations from July 25, 2007 are shown on a **Groundwater Contour Map**, provided in **Appendix A**.

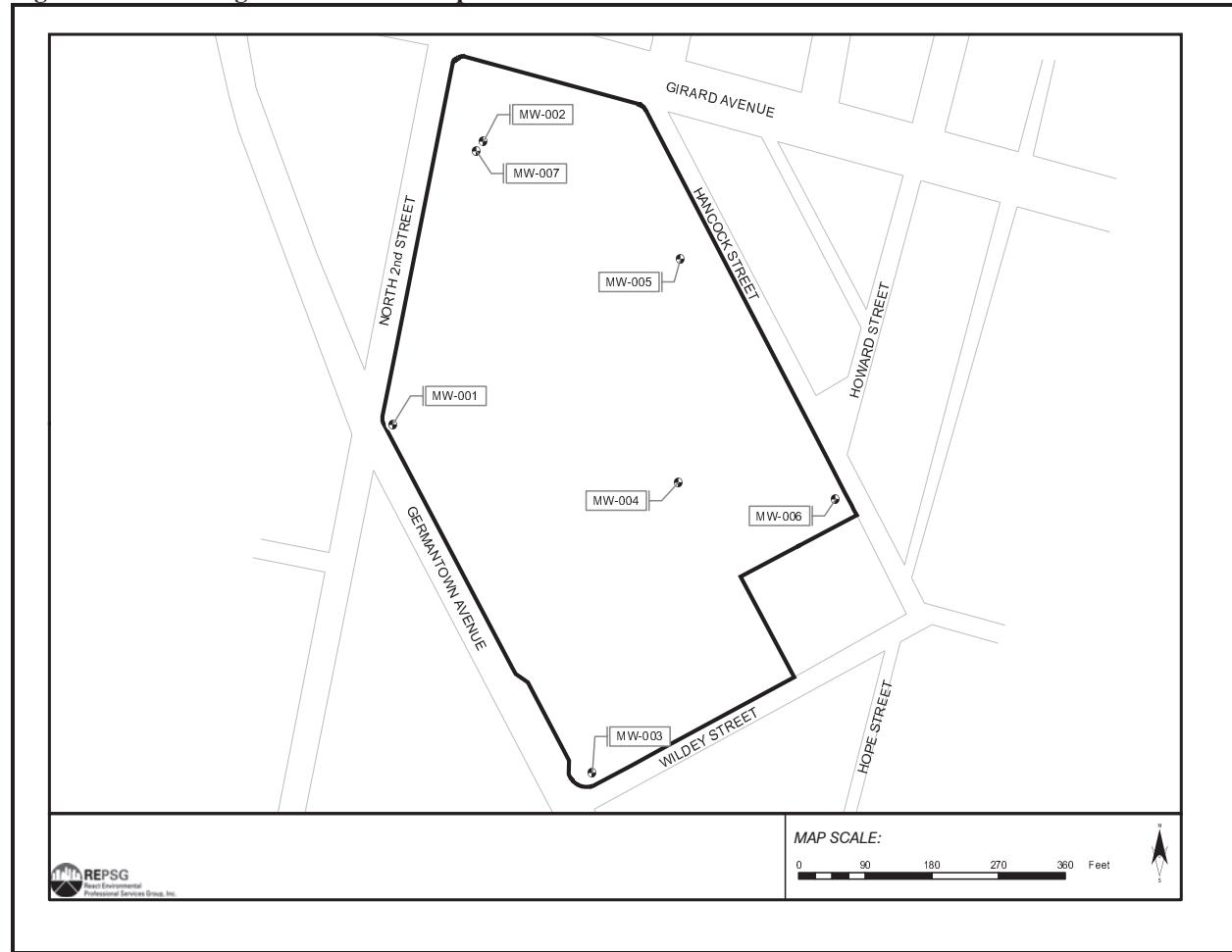
**Table 2: Groundwater Elevations**

Well	Casing Elevation (NAVD88 ft)	Status	Date	Depth to Water (ft)	GW Elevation (NAVD88 ft)
MW-001	23.11	Operational	11/9/2002	17.60	5.51
			11/18/2002	17.31	5.80
			3/19/2003	17.69	5.42
			8/31/2005	18.00	5.11
			5/12/2006	18.09	5.02
			7/17/2007	18.12	4.99
			7/25/2007	18.15	4.96
MW-002	26.49	Abandoned	11/9/2002	12.28*	14.21*
			11/18/2002	11.86*	14.63*
			3/19/2003	12.25*	14.24*
			8/31/2005	12.05*	14.44*
			5/12/2006	12.09*	14.40*
			7/17/2007	13.48*	13.01*
			7/25/2007	13.62*	12.87*
MW-003	16.19	Operational	11/9/2002	11.85	4.34
			11/18/2002	10.54	5.65
			3/19/2003	12.60	3.59
			8/31/2005	12.28	3.91
			5/12/2006	12.15	4.04
			7/17/2007	12.17	4.02
			7/25/2007	12.21	3.98
MW-004	24.55	Abandoned	11/9/2002	19.43	5.12
			11/18/2002	19.25	5.30
			3/19/2003	19.50	5.05
			8/31/2005	19.53	5.02
MW-005	21.54	Operational	11/9/2002	16.89	4.65
			11/18/2002	16.63	4.91
			3/19/2003	16.86	4.68
			8/31/2005	16.95	4.59
			5/12/2006	17.08	4.46
			7/25/2007	17.07	4.47
MW-006	15.58	Operational	11/9/2002	11.08	4.50
			11/18/2002	10.87	4.71
			3/19/2003	11.17	4.41
			8/31/2005	11.08	4.50
			5/12/2006	11.17	4.41
			7/17/2007	11.17	4.41
			7/25/2007	11.21	4.37
MW-007	26.57	Operational	7/17/2007	20.71	5.86
			7/25/2007	20.72	5.85

**Note:** Monitoring wells were surveyed by James M. Stewart, Inc. land surveyors on September 9, 2005; monitoring well MW-007 was tied into the monitoring well network via relative elevation survey performed by REPSG.

\*Depth to water measurements and groundwater elevation measurements for monitoring well MW-002 varied significantly from the groundwater elevation data collected from the rest of the on-Site wells. This static water level in this well is believed to be reflective of perched water conditions; these results are not believed to be representative of Site groundwater elevation.

Figure 2: Monitoring Well Location Map



Groundwater samples have been collected from the well network and analyzed for PCBs on six occasions. PCBs have never been detected above the laboratory minimum detection limits and therefore groundwater is not considered to have any PCB impacts. A complete summary of groundwater characterization efforts is presented in the PADEP Act 2 Combined Report.

### **3.5.3 Sensitive Receptors**

**Surface Waters.** There are no surface water bodies located at the Site. The nearest surface water body is the Delaware River, located approximately 0.4 miles southeast of the Site.

**Potable Water Supply.** According to the USGS, historical regional chemical contamination has rendered water in the unconfined and confined aquifers in Philadelphia unsuitable for most uses. Currently, surface waters are the sole source of municipal supply in Philadelphia. Groundwater withdrawals constitute only a small percentage of water use in Philadelphia, and are mainly for site de-watering and industrial use.

REPSG conducted ½-mile radius well search consisting of a review of the Pennsylvania Groundwater Information Service (PaGWIS) and Water Well Inventory databases. A **Well Search Map** is provided in **Appendix A**. No public supply or domestic drinking water wells were identified within the search radius. In addition to this PaGWIS and Water Well Inventory database searches, a directory of all drinking water wells which have been issued permits by the City of Philadelphia Health Department prior to June 2000, did not identify any wells located within ½-mile of the Site.

**Wetlands.** According to the National Wetlands Inventory (NWI) mapping, there are no wetlands present at the Site.

## 4.0 SUMMARY OF PRIOR INVESTIGATIONS

### 4.1 Baseline Remedial Investigation Workplan (January 25, 2001)

A Baseline Remedial Investigation Workplan (BRIW) dated January 25, 2001 was submitted to the PADEP by US Inspect, LLC and approved by the Department on February 2, 2001 (copies of the BRIW and approval letter are attached at **Appendix G**). The BRIW separated the project scope into pre-demolition tasks and post-demolition environmental assessment. Pre-demolition activities consisted of assessment of all potentially hazardous materials, segregation and containment of hazardous materials, and proper off-site disposal. Pre-demolition removal work was described in **Section 3.4** (Site Ownership and Operational History).

### 4.2 PADEP LRP Combined Report (January 31, 2008)

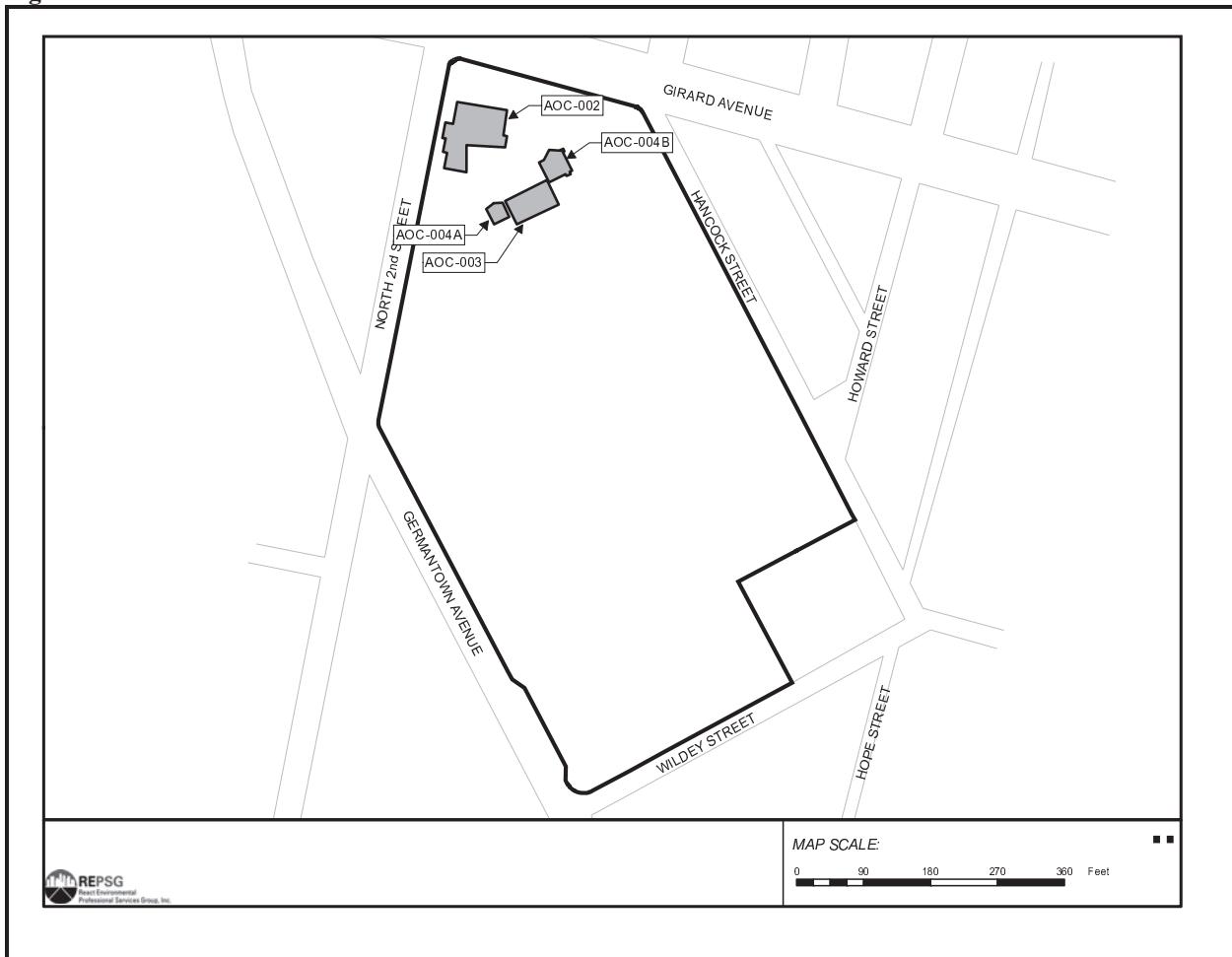
The Act 2 Combined Report dated January 31, 2008 consolidated the findings of the all previous investigations, including those summarized in the BRIW, and detailed the soil sampling performed by REPSG from 2005 to 2007. A summary of the findings of the soil characterization in the Act 2 Combined Report, organized by AOC, are contained in the following sections below; only AOCs with potential PCB impacts are included. A list of these AOCs with potential PCB impacts is presented in **Table 3** and the locations of these AOCs are depicted on **Figure 4**.

**Table 3: Areas of Concern<sup>2</sup>**

<i>AOC Name</i>	<i>AOC Description</i>
AOC-002	A former transformer room located at the ground floor of former Building #21.
AOC-003	A former transformer room located at the ground floor of former Building #11
AOC-004A	A former sub-surface vault located southwest of former Building #11
AOC-004B	A former sub-surface vault located at the loading dock between former Buildings #24 and #12.
AOC-007	Site-wide soil quality

<sup>2</sup> Areas of Concern (AOCs) were numbered according to the original numbering scheme presented in the PADEP Act 2 Combined Report submitted to the Department on January 31, 2008. AOCs that are not presented in this report did not include PCBs as a Compound of Concern (COC).

Figure 3: Areas of Concern



#### **4.2.1 AOC-002: Building #21**

AOC-002: Building #21 was remediated to attain residential Statewide Health Standards (SWHS) using a statistical method in accordance with Section 250.707(b)(1)(i) of the PADEP Act 2 regulations.<sup>3</sup> In correspondence dated May 7, 2008, PADEP approved the attainment of residential SWHS for PCBs at this AOC. This former building, located near the corner of 2<sup>nd</sup> Street and Girard Avenue, formerly contained electrical equipment in a ground floor transformer room. It is REPSG's understanding that the transformers in Building #21 were removed prior to NLD's acquisition of ownership of the property.<sup>4</sup> Prior to building demolition, residual PCB oil staining originating from electrical equipment was documented on the concrete floor of this building.<sup>5</sup> The demolition contractor staged the stained Building #21 concrete slab in the Building #11 basement area (AOC-003); characterization of the Building #11 basement area is discussed in **Section 4.2.2**.

The currently anticipated future usage at this AOC will be paved outdoor walkways and a commercial development; as such, for TSCA purposes, future use at this area is considered both high and low occupancy.

Extensive characterization of the soils beneath former Building #21 was conducted between 2002-2007 by both US Inspect and REPSG. Two Aroclors, Aroclor 1254 and Aroclor 1260, were identified in elevated concentrations requiring remediation. These two Aroclors were detected at concentrations ranging between 0 and 5,900 ppm, and 0 and 12,000 ppm, respectively.

Remediation work included soil excavation and offsite disposal. Over the course of the remediation of AOC-002: Building #21 a total of 4,903.461 tons of soil was excavated and disposed at the following facilities: 506.79 tons of soil at Model City Landfill in Model City, NY; 4,135.271 tons of soil at Wayne Disposal, Inc. in Belleville, MI; and 261.40 tons of soils at Clean Earth of Philadelphia in Philadelphia, PA. Disposal documentation is provided in **Appendix C**.

Upon the conclusion of the AOC-002: Building #21 remediation, soils at 42 of the sample locations collected for PCB analysis remained *in-situ*. These 42 samples are the samples which have been used for site characterization of PCBs in the current report. These characterization samples are discussed in **Section 5**.

<sup>3</sup> According to Section 250.707(b)(1)(i) of the PADEP Act 2 regulations attainment of SWHS can be met by satisfying the "75%/10X" rule. This rule states that when 75% of sample concentrations are equal to or less than the applicable MSC and no individual sample exceeds 10 times the applicable MSC, this statistical test may demonstrate attainment of SWHS.

<sup>4</sup> ePhase, Inc. Draft Limited Phase I Environmental Site Assessment, Former Schmidt's Brewery, 160-186 Girard Avenue, Philadelphia, PA, August 17, 1999.

<sup>5</sup> US Inspect, LLC. Baseline Remedial Investigation Workplan (January 25, 2001).

#### **4.2.2 AOC-003: Building #11 Basement**

AOC-003: Building #11 was remediated to attain residential SWHS with no exceedances in accordance with Section 250.703 of the PADEP Act 2 regulations. In correspondence dated May 7, 2008, PADEP approved the attainment of residential SWHS for PCBs at this AOC. This former building, located towards the central and northern portion of the site, formerly contained electrical equipment in the ground floor transformer room. REPSG understands that the transformers were removed prior to NLD's ownership. Observations of oil-stained debris and concrete on the ground floor of the transformer room were documented in the BRIW. The transformer room was located directly above the Building #11 basement. Reportedly, the oil impacted Building #11 transformer room was demolished and the debris was inadvertently collapsed into the Building #11 basement. As noted above, stained concrete from the former Building #21 concrete floor slab was also temporarily staged in this basement.

The currently anticipated future usage at this AOC will be a covered parking lot; as such, for TSCA purposes, future use at this area is considered low occupancy.

US Inspect provided oversight for removal of the concrete and brick debris from the Building #11 basement, and REPSG directed the transport of these materials to Model City Landfill of Model City, NY for disposal in October of 2005. A total of approximately 631.36 tons of concrete and brick debris was removed from the Site. Disposal documentation is provided in **Appendix C**.

Following demolition and removal of the former basement slab, sampling identified additional PCB impacts in the underlying soils. Aroclor 1260, the only PCB compound detected, ranged between 0 and 11 ppm. Remediation work included soil excavation and offsite disposal. Over the course of the remediation of AOC-003: Building #11 a total of 1,242.261 tons of soil was excavated and disposed at the following facilities: 607.43 tons of soil at Wayne Disposal, Inc. in Belleville, MI, and 634.831 tons of soils at Clean Earth of Philadelphia in Philadelphia, PA. Disposal documentation is provided in **Appendix C**.

Following demolition of the former basement slab and the remediation of soils, twelve soil characterization samples remained *in situ*. These twelve samples are the samples which have been used for site characterization of PCBs in the current report. These characterization samples are discussed in **Section 5**.

#### 4.2.3 AOC-004A: Vault A

AOC-004A: Vault A was remediated to attain residential SWHS with no exceedances in accordance with Section 250.703 of the PADEP Act 2 regulations. In correspondence dated May 7, 2008, PADEP approved the attainment of residential SWHS for PCBs at this AOC. This vault was located immediately west of Building #11. Vault A was found to contain PCB-impacted sand from an unknown source predating NLD's acquisition of the Site. The sand in this vault, the brick vault walls and concrete vault floor, and the surrounding soils were excavated and removed between April and October 2005.

The currently anticipated future usage at this AOC will be a covered parking lot; as such, for TSCA purposes, future use at this area is considered low occupancy.

Extensive characterization of the soils beneath and surrounding former Vault A was conducted between April and October 2005 by REPSG. Three Aroclors, Aroclor 1016, Aroclor 1254, and Aroclor 1260, were identified in elevated concentrations requiring remediation. These three Aroclors were detected at concentrations ranging between 0 and 650 ppm, 0 and 1700 ppm, and 0 and 1100 ppm, respectively.

Remediation work included soil excavation and offsite disposal. Over the course of the remediation of AOC-004A: Vault A a total of 315.66 tons of soil, brick, and concrete material were removed from the site and disposed of at Wayne Disposal, Inc. in Belleville, MI. Disposal documentation is attached with **Appendix C**.

Upon the conclusion of the AOC-004A: Vault A remediation, soils at fourteen of the sample locations collected for PCB analysis remained *in-situ*. These fourteen samples are the samples which have been used for site characterization of PCBs in the current report. These characterization samples are discussed in **Section 5**.

#### 4.2.4 AOC-004B: Vault B

AOC-004B: Vault B was remediated to attain residential SWHS with no exceedances in accordance with Section 250.703 of the PADEP Act 2 regulations. In correspondence dated May 7, 2008, PADEP approved the attainment of residential SWHS for PCBs at this AOC. This vault was located immediately northeast of Building #11. Like Vault A, Vault B was found to contain PCB-impacted sand from an unknown source predating NLD's acquisition of the Site. The sand in this vault, the brick vault walls and concrete vault floor, and the surrounding soils were excavated and removed between April and October 2005.

The currently anticipated future usage at this AOC will be a covered parking lot and a commercial development; as such, for TSCA purposes, future use at this area is considered both high and low occupancy.

Extensive characterization of the soils beneath and surrounding Vault B were conducted between April and October 2005 by REPSG. One Aroclor, Aroclor 1260, was identified in elevated concentrations requiring remediation. This one Aroclor was detected at concentrations ranging between 0 and 260 ppm.

Remediation work included soil excavation and offsite disposal. Over the course of the remediation of AOC-004B: Vault B a total of 464.57 tons of soil, brick, and concrete material were removed from the site and disposed of at Wayne Disposal, Inc. in Belleville, MI. Disposal documentation is attached with **Appendix C**.

Upon the conclusion of the AOC-004B: Vault B remediation, soils at 22 of the sample locations collected for PCB analysis remained *in-situ*. These 22 samples are the samples which have been used for site characterization of PCBs in the current report. These characterization samples are discussed in **Section 5**.

#### 4.2.5 AOC-007: Sitewide Soils

AOC-007: Sitewide Soils were remediated to residential SWHS using a statistical method in accordance with Section 250.707(b)(1)(ii) of the PADEP Act 2 regulations. In correspondence dated May 7, 2008, PADEP approved the attainment of residential SWHS for PCBs at this AOC. The sitewide soils were initially investigated in a comprehensive investigation in September 2005, where 58 soil samples were collected from an organized grid across the entire extent of the Site.

In addition to the September 2005 comprehensive sitewide soils investigation, several soil investigations conducted at specific areas on the site were included in the AOC-007 assessment of sitewide soil conditions.

The currently anticipated future usage at this AOC will include residential and commercial developments, as well as landscaped parks and hard covered parking lots; as such, for TSCA purposes, future use at this area is considered either high or low occupancy in different sections of the Site.

Extensive characterization of the soils across the site indicated two Aroclors (Aroclor 1254 and Aroclor 1260) mostly at low concentrations, with isolated locations containing more elevated concentrations requiring remediation. These two Aroclors were detected at concentrations ranging between 0 and 9.1 ppm, and 0 and 150 ppm, respectively.

Remediation work included localized excavations and removal of soil. Over the course of the remediation of AOC-007: Sitewide Soils a total of 98.67 tons of soils were removed from the site and disposed of at Wayne Disposal, Inc. in Belleville, MI. Disposal documentation is attached with **Appendix C**.

Upon the conclusion of the AOC-007: Sitewide Soils remediation, soils at 112 of the sample locations collected for PCB analysis remained *in-situ*. The 112 soil samples which remained *in-situ* served as the attainment soil samples for the AOC-007 remediation.

In addition to these site characterization samples, three excavation areas were infilled using pre-screened soils reused from other on-site excavations. After these soils were in place, twelve soil samples were collected from these now *in situ* soils and analyzed for PCBs; these samples were also included in the AOC-007 Sitewide soil characterization.

In total 124 samples, comprised of the 112 sitewide samples and the twelve infill samples, were used in the AOC-007 Sitewide soil characterization, and are the samples which have been used for site characterization of PCBs in the current report. These characterization samples are discussed in **Section 5**.

## 5.0 SITE INVESTIGATION

Upon the conclusion of the above-described site investigation and remediation work, remaining on-Site soils were characterized by the 214 samples which were collected for PCB analysis during the previous site investigation and remain *in situ*. These remaining soil samples represent the current site conditions, and are the soil samples included in the site investigation described in this section of the report for evaluation relative to TSCA requirements.

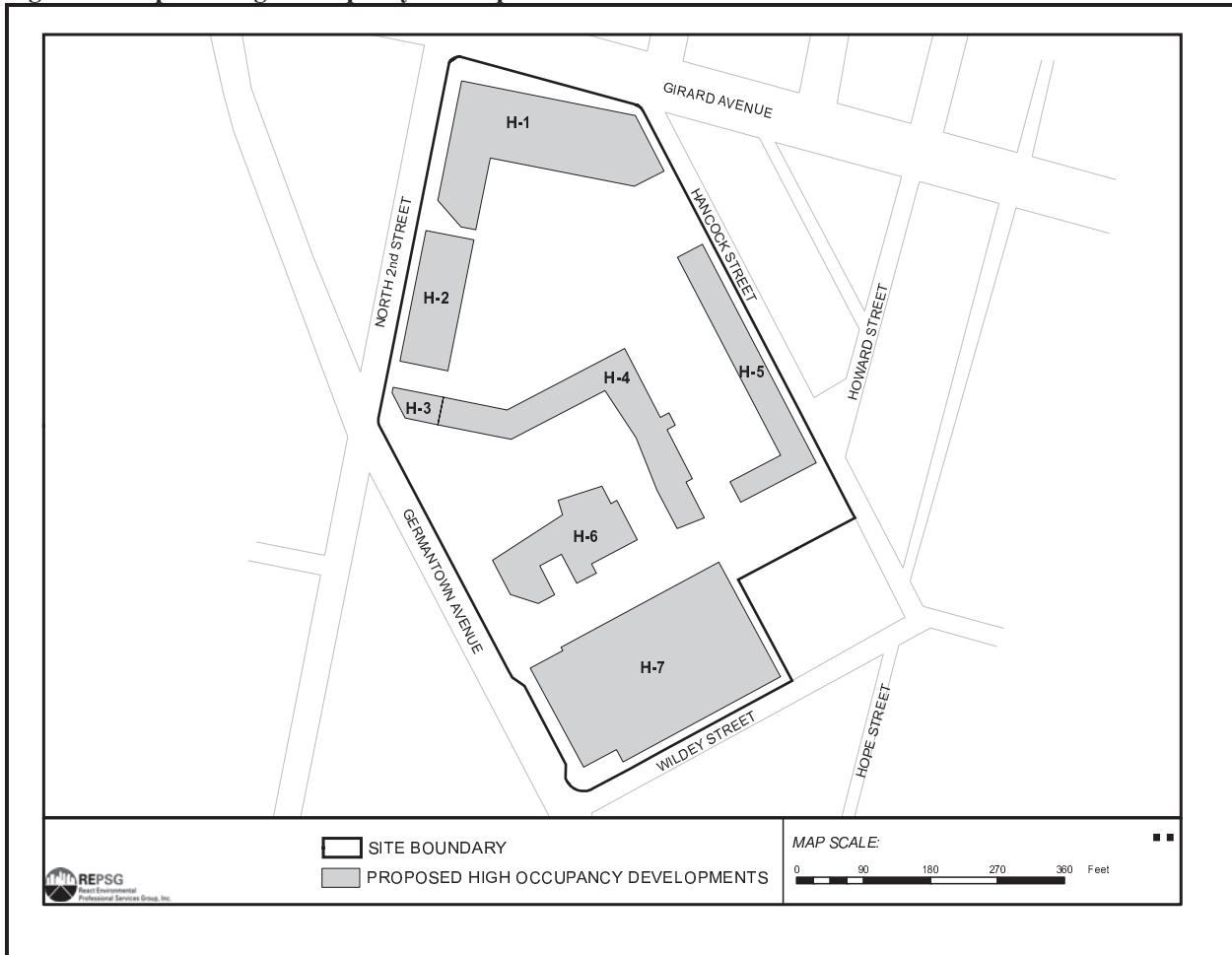
### 5.1 PCB Soil Analytical Results in High Occupancy Areas

Out of the 214 samples included in the site investigation, 98 of these samples are located within areas where the currently anticipated future developments are defined as high occupancy usage, i.e., occupancy for an individual (without dermal and respiratory protection) for an average of 6.7 hours or more per week.<sup>6</sup> The site includes several areas with proposed developments that are considered high occupancy; these include both residential and commercial developments. Locations of these areas of high occupancy are provided in **Figure 4**, and detailed descriptions of each area (as indicated by the key) are provided immediately following the figure.

---

<sup>6</sup> 40 CFR § 761.3.

Figure 4: Proposed High Occupancy Developments



DEVELOPMENT ID	DESCRIPTION
H-1	The ground floor of this development will include approximately 31,470 square feet of commercial/retail space, which will be approximately two stories in height. A grocery store, with a footprint of 53,190 square feet, will be developed above these commercial units and above the two-story parking lot (L-1 shown in <b>Figure 7</b> ) to be constructed adjacent to, and along the interior of, these this commercial/retail development. Two elevators will be included at the southern portion of the development located along North 2nd Street.
H-2	The ground floor of this development will include approximately 11,880 square feet of commercial/retail space, which will be approximately two stories in height, and will have a parking lot on top of this commercial retail unit.
H-3	The ground floor of this development will include approximately 2,050 square feet of commercial/retail space, which will be approximately two stories in height, and will have residential units on top of this commercial retail unit.
H-4	The ground floor of this development will include approximately 10,435 square-foot of residential space, a 7,130 square-foot residential lobby, and a 2,570 square-foot support area for the building janitorial services. Above the ground floor, this building will be developed with residential units. The eastern wing of this building will be four floors in height, while the southern wing of this building will be 16 floors in height. The entire building will be developed with residential units.
H-5	The footprint of this building will be approximately 14,880 square feet. The entire building, include the ground floor, will exclusively developed with residential units. These proposed units will be duplex units; the entire building will be four floors in height.
H-6	The ground floor of this development will include approximately 10,830 square feet of commercial/retail space, a lobby encompassing approximately 3,300 square feet for the residential tower, and an elevator bank including three elevators and a staircase. The rest of the building will be developed with residential units; the entire height of the building will be 26 floors.
H-7	The ground floor of this development is currently zoned for commercial usage. Approval has been granted for the development of a parking garage; the building will be four floors tall.

There are soils, represented by 98 soil samples, present beneath the proposed high occupancy developments which have total PCB concentrations between 0 and 350 ppm. Ten soil samples have total PCB concentrations above 10 ppm, while the remaining 88 soil samples have total PCB concentrations below 10 ppm. The locations and analytical results for these 98 soil samples are presented in the **Section 5.1.1** and **Section 5.1.2**, below. Analytical summary packages are provided in **Appendix B** and laboratory analytical data packages are provided in **Appendix F**.

### 5.1.1 Total PCB concentrations greater than 10 ppm

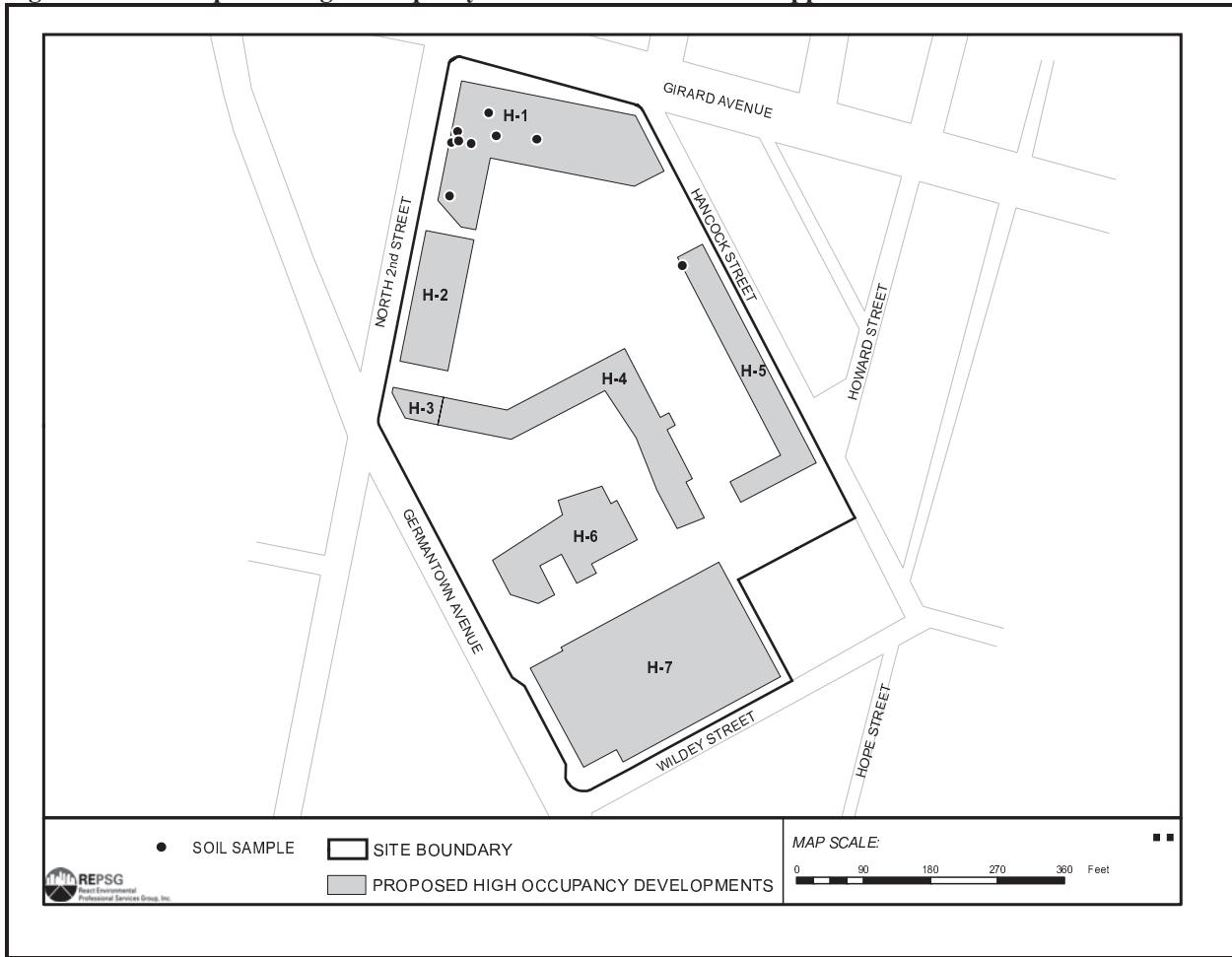
Ten soil samples have total PCB analytical results greater than 10 ppm and were collected from areas of the site that are currently anticipated to be developed as high occupancy areas. Nine of these ten soil samples were collected in the former Building #21 area, or in the shallow soils surrounding the Building #21 area; these nine sample locations are all present beneath proposed development "H-1". The one other soil sample present beneath a proposed high occupancy development with a total PCB concentration greater than 10 ppm is sample B-035. This sample is present beneath proposed development "H-5". The analytical results and locations for these ten samples are displayed in **Table 4** and **Figure 5**, below.

**Table 4: Soil Samples in High Occupancy Areas and Total PCBs >10 ppm**

SAMPLE:	SAMPLE DEPTH (fbg):	SAMPLE DATE:	ANALYTICAL RESULTS Total PCBs (ppm):
B-035	0.5	2-Sep-05	15D
B-045	0.5	2-Sep-05	11D
B-046	0.5	2-Sep-05	13D
AOC2-PE-018	18.0	8-Nov-05	35D
AOC2-PE-021	19.0	25-May-06	350D
AOC2-PE-030	8.5	25-May-06	16D
AOC2-PE-031	15.0	25-May-06	14D
AOC2-PE-022	19.0	10-Jan-07	19.3D
AOC2-PE-041	6.0	24-Apr-07	13.8D
AOC2-PE-058	12.0	7-May-07	110D

QUALIFIERS: D = Compound identified at a secondary dilution factor.

Figure 5: Soil Samples in High Occupancy Areas and Total PCBs >10 ppm



### **5.1.2 Total PCB concentrations less than or equal to 10 ppm**

Eighty-eight soil samples have total PCB analytical results less than or equal to 10 ppm and were collected from areas of the site that are currently anticipated to be developed as high occupancy areas. The analytical results and locations for these ten samples are displayed in **Table 5** and **Figure 6**, below.

**Table 5: Soil Samples in High Occupancy Areas and Total PCBs ≤10 ppm**

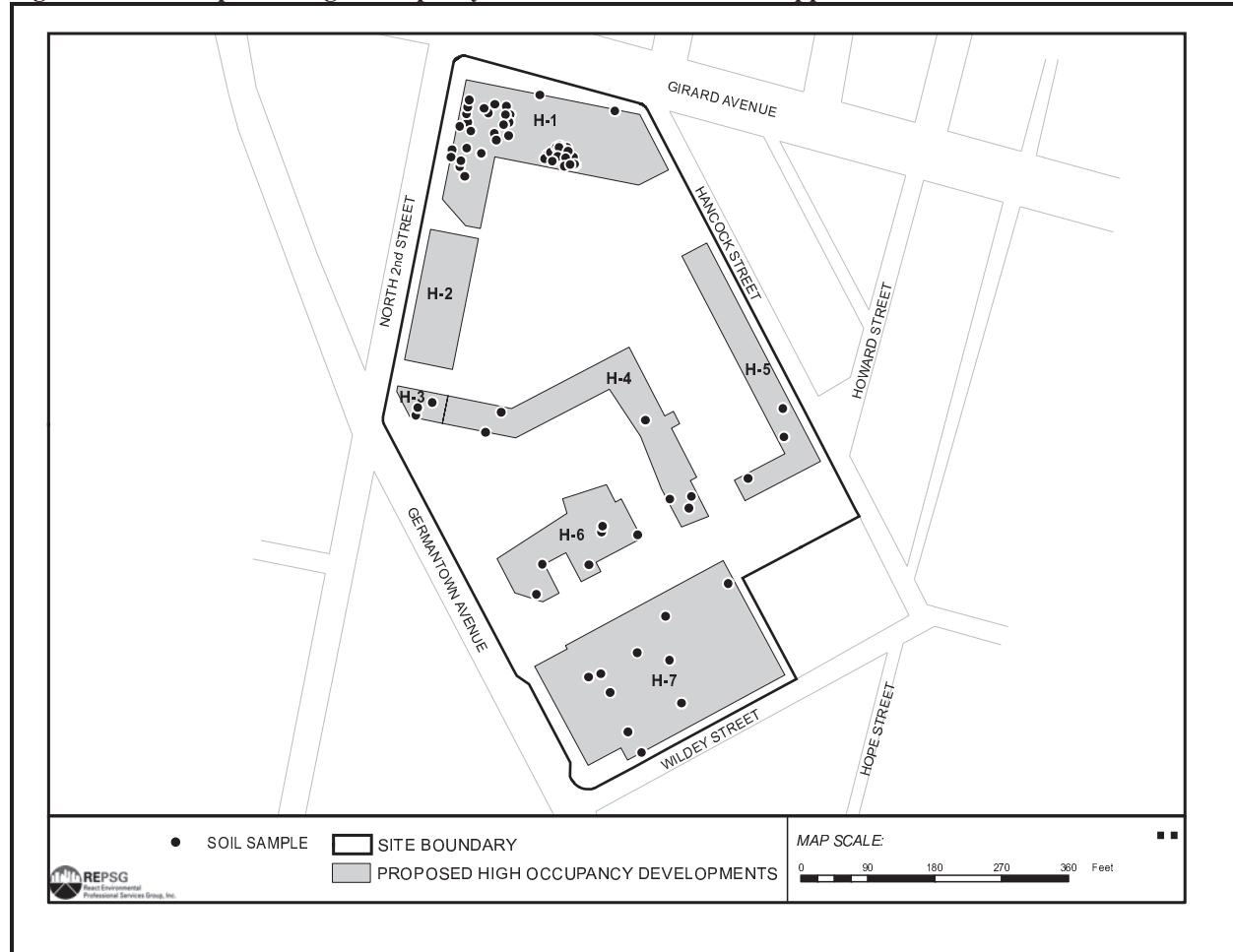
SAMPLE:	SAMPLE DATE:	SAMPLE DEPTH (fbg):	ANALYTICAL RESULTS Total PCBs (ppm):
TP-001	24-Oct-02	4.0	ND
TP-001	24-Oct-02	16.0	ND
TP-003	24-Oct-02	4.0	ND
TP-003	24-Oct-02	15.0	ND
TP-004	24-Oct-02	4.0	ND
TP-004	24-Oct-02	16.0	ND
TP-006	24-Oct-02	4.0	ND
TP-006	24-Oct-02	16.0	ND
TP-007	24-Oct-02	4.0	0.02
TP-007	24-Oct-02	16.0	1.031
TP-012	24-Oct-02	4.0	ND
TP-012	24-Oct-02	16.0	ND
VB-PE-011	25-Apr-05	12.0	3.1D
VB-PE-012	25-Apr-05	12.0	0.43D
VB-PE-001	26-Apr-05	10.0	0.063
VB-PE-002	26-Apr-05	10.0	< 0.05
VB-PE-004	26-Apr-05	10.0	1.2D
VB-PE-005	26-Apr-05	10.0	< 0.05
VB-PE-008	26-Apr-05	12.0	< 0.05
VB-PE-009	26-Apr-05	12.0	6.6D
VB-PE-010	26-Apr-05	12.0	< 0.05
B-002G	18-Aug-05	19.0	< 0.05
B-003G	18-Aug-05	18.0	< 0.05
B-012G	18-Aug-05	13.0	< 0.05
B-013G	18-Aug-05	14.0	< 0.05
B-016G	18-Aug-05	13.0	< 0.05
VB-PE-003A	18-Aug-05	11.5	0.089
VB-PE-003B	18-Aug-05	11.5	0.058
VB-PE-003C	18-Aug-05	12.0	0.52D
VB-PE-003D	18-Aug-05	12.0	0.56D
VB-PE-003E	18-Aug-05	13.0	0.33D
AOC4B-003	1-Sep-05	3.0	0.41D
AOC4B-004	1-Sep-05	3.0	1.8D
AOC4B-006	1-Sep-05	2.0	1.78D
B-001	1-Sep-05	0.5	7.6D
B-001	1-Sep-05	12.0	< 0.05

B-003	1-Sep-05	0.5	0.72D
B-003	1-Sep-05	12.0	< 0.05
B-008	1-Sep-05	0.5	0.48E
B-008	1-Sep-05	12.0	< 0.05
B-009	1-Sep-05	0.5	0.29D
B-011	1-Sep-05	0.5	< 0.075
B-011	1-Sep-05	12.0	< 0.05
B-012	1-Sep-05	0.5	0.56D
B-012	1-Sep-05	12.0	< 0.05
B-023	1-Sep-05	0.5	< 0.25
B-023	1-Sep-05	12.0	< 0.05
B-002	2-Sep-05	0.5	6.3D
B-013	2-Sep-05	0.5	< 0.5
B-014	2-Sep-05	0.5	8D
B-015	2-Sep-05	0.5	9.7D
B-022	2-Sep-05	0.5	7D
B-044	2-Sep-05	0.5	7.3D
B-047	2-Sep-05	0.5	< 5
B-039A	23-Sep-05	0.5	< 2.5
B-039B	23-Sep-05	0.5	< 0.5
AOC4B-PE-001	4-Oct-05	4.0	6.2D
AOC4B-PE-002	4-Oct-05	4.0	7.8D
HYD-001	4-Oct-05	17.0	< 0.12
AOC2-PE-013	8-Nov-05	20.0	< 1.3
AOC2-PE-020	8-Nov-05	18.0	1.6D
AOC2-PE-026	25-May-06	13.6	5.8E
AOC2-PE-033	30-Nov-06	8.5	6.8D
AOC2-026	11-Jan-07	6.0	< 0.0082
AOC2-026	11-Jan-07	12.0	< 0.0082
AOC2-026	11-Jan-07	16.0	< 0.0082
AOC2-026	11-Jan-07	18.5	< 0.0082
AOC2-PE-036	24-Apr-07	12.0	0.075D
AOC2-PE-037	24-Apr-07	12.0	0.77D
AOC2-PE-039	24-Apr-07	6.0	7.3D
AOC2-PE-042	24-Apr-07	12.0	6.2D
AOC2-PE-043	24-Apr-07	12.0	0.1
AOC2-PE-044	24-Apr-07	12.0	0.085
AOC2-PE-045	24-Apr-07	12.0	0.66
AOC2-PE-046	24-Apr-07	12.0	< 0.037
AOC2-PE-049	24-Apr-07	12.0	0.89D
AOC2-PE-052	27-Apr-07	18.0	0.23D
AOC2-PE-054	27-Apr-07	18.0	1.11D
AOC2-PE-055	7-May-07	19.0	< 0.042
AOC2-PE-056	7-May-07	19.0	0.13
AOC2-PE-057	7-May-07	19.0	< 0.05
AOC2-PE-059	7-May-07	12.0	0.79D

AOC2-PE-060	7-May-07	12.0	< 0.039
AOC2-PE-061	7-May-07	9.0	9.5D
SB-202	16-Oct-07	10.0	1.79D
SB-203	16-Oct-07	8.0	< 0.025
SB-209	16-Oct-07	6.0	4.2D
SB-211	16-Oct-07	6.0	4D

QUALIFIERS:  $\leq$  = Indicates that the reported concentration is below the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. ND = Indicates that the concentration is below MDL, which is unknown.

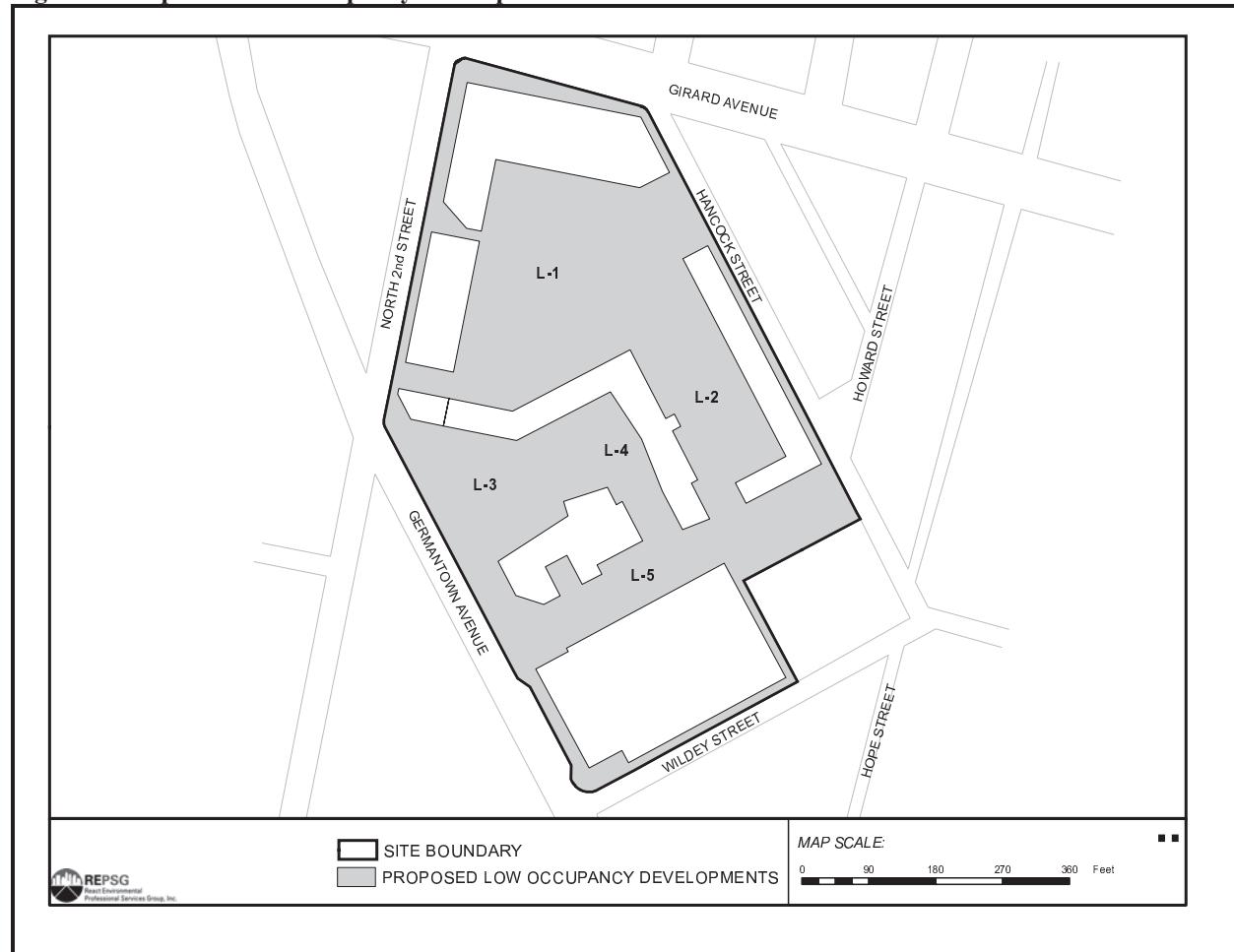
Figure 6: Soil Samples in High Occupancy Areas and Total PCBs  $\leq$  10 ppm



## 5.2 PCB Soil Analytical Results in Low Occupancy Areas

Out of the 214 samples included in the site investigation, 116 of these samples are located within areas where the currently anticipated developments are defined as low occupancy usage; i.e., occupancy for an individual (without dermal and respiratory protection) for an average of less than 6.7 hours per week.<sup>7</sup> The site includes several areas with proposed developments that are considered low occupancy areas; they include outdoor recreational areas, exterior landscaped and hardscaped areas, outdoor parking lots, and enclosed parking lots. Locations of these areas of low occupancy are provided in **Figure 7**, and detailed descriptions of each area (as indicated by the key) are provided immediately following the figure.

**Figure 7: Proposed Low Occupancy Developments**



<sup>7</sup> 40 CFR § 761.3

DEVELOPMENT ID	DESCRIPTION
L-1	The ground floor of this development will include a covered parking lot with approximately 158 parking spaces. The height of this development will be roughly two levels, and will be even with the ground floor commercial development in H-1. The second level of this development will be an open-air parking lot with approximately 160 parking spaces. This parking area will be on the same level as the grocery store which will be installed at the intersection of North 2nd Street and Girard Avenue as part of the H-1 proposed development.
L-2	The ground floor of this development will include a covered parking lot with approximately 50 parking spaces. On top of this ground floor development will be two additional floors of parking. The proposed second floor of parking will have 82 parking spaces, while the third floor will have approximately 84 parking spaces. Above the third floor is proposed a landscaped “green” roof.
L-3	This ground floor development will be a public park, to include both landscaping and hardscaping. The approximate area of this park is 16,000 square feet.
L-4	This ground floor development will include a paved driveway, and a small landscaped island surrounded by the paved driveway.
L-5	This ground floor development will include the new Van Horn Street.

There are soils, represented by 116 soil samples, present beneath the proposed low occupancy developments which have total PCB concentrations between 0 and 3200 ppm. One soil sample (AOC2-PE-051) has a total PCB concentration above 100 ppm, while the remaining 115 soil samples have total PCB concentrations below 100 ppm. The locations and analytical results for these 116 soil samples are presented in the **Section 5.2.1** and **Section 5.2.2**, below. Analytical summary packages are provided in **Appendix B** and laboratory analytical data packages are provided in **Appendix F**.

### 5.2.1 Total PCB concentrations greater than 100 ppm

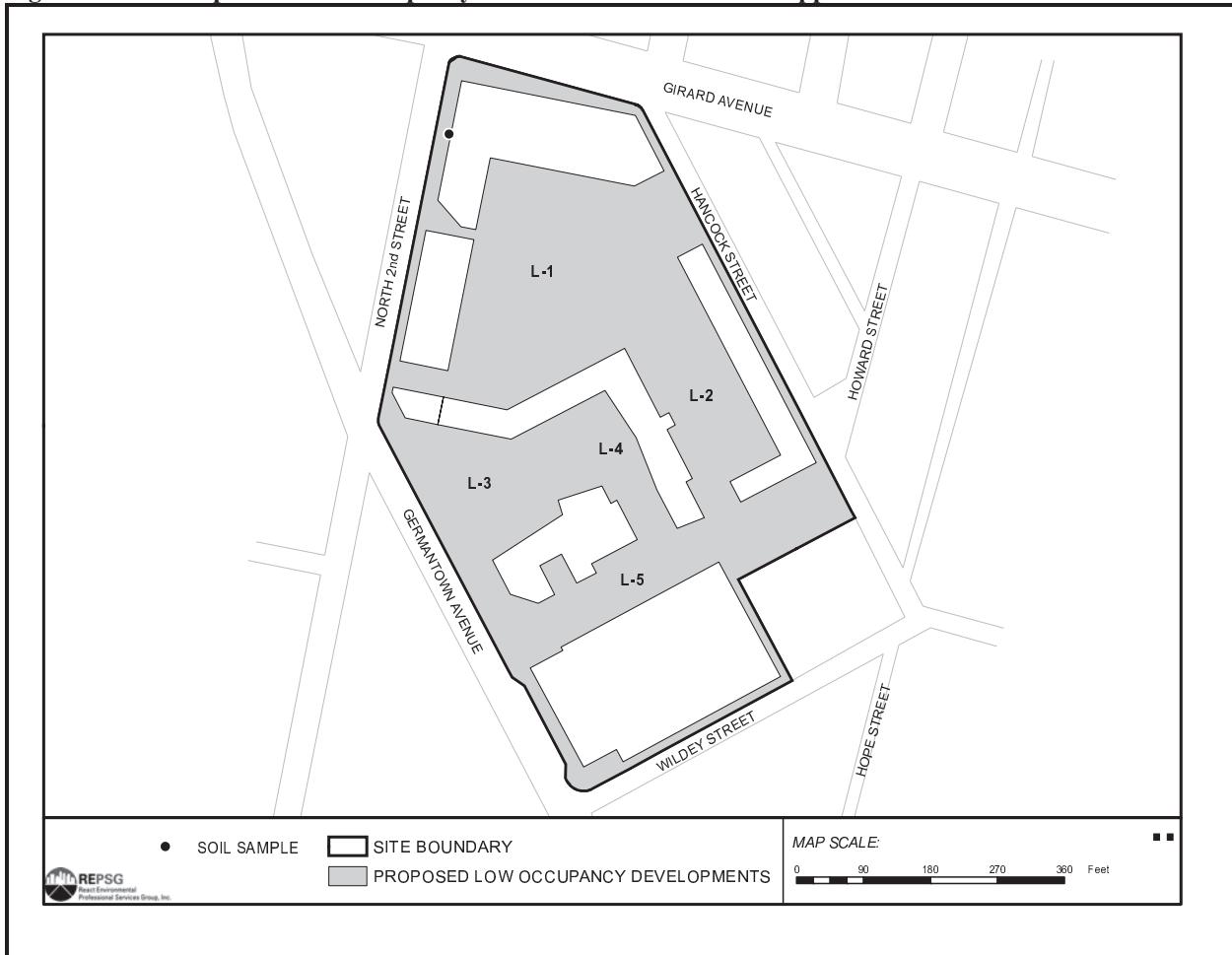
One soil sample has a total PCB analytical result greater than 100 ppm and was collected from beneath an area of the site that is currently anticipated to be developed as a low occupancy area. This one soil sample was collected from beneath the proposed hardscaped walk-way along North 2<sup>nd</sup> Street in front of the high occupancy commercial development identified as “H-1.” The analytical result and location for this one sample is displayed in **Table 6** and **Figure 8**, below.

**Table 6: Soil Samples in Low Occupancy Areas and Total PCBs >100 ppm**

SAMPLE:	SAMPLE DEPTH (fbg):	SAMPLE DATE:	ANALYTICAL RESULTS Total PCBs (ppm):
AOC2-PE-051	22	25-Apr-07	3200D

QUALIFIERS: D = Compound identified at a secondary dilution factor.

Figure 8: Soil Samples in Low Occupancy Areas and Total PCBs >100 ppm



### **5.2.2 Total PCB concentrations less than or equal to 100 ppm**

One hundred fifteen soil samples have total PCB analytical results less than or equal to 100 ppm and were collected from areas of the site that are currently anticipated to be developed as low occupancy areas. The analytical results and locations for these samples are displayed in **Table 7** and **Figure 9**, below.

**Table 7: Soil Samples in Low Occupancy Areas and Total PCBs ≤100 ppm**

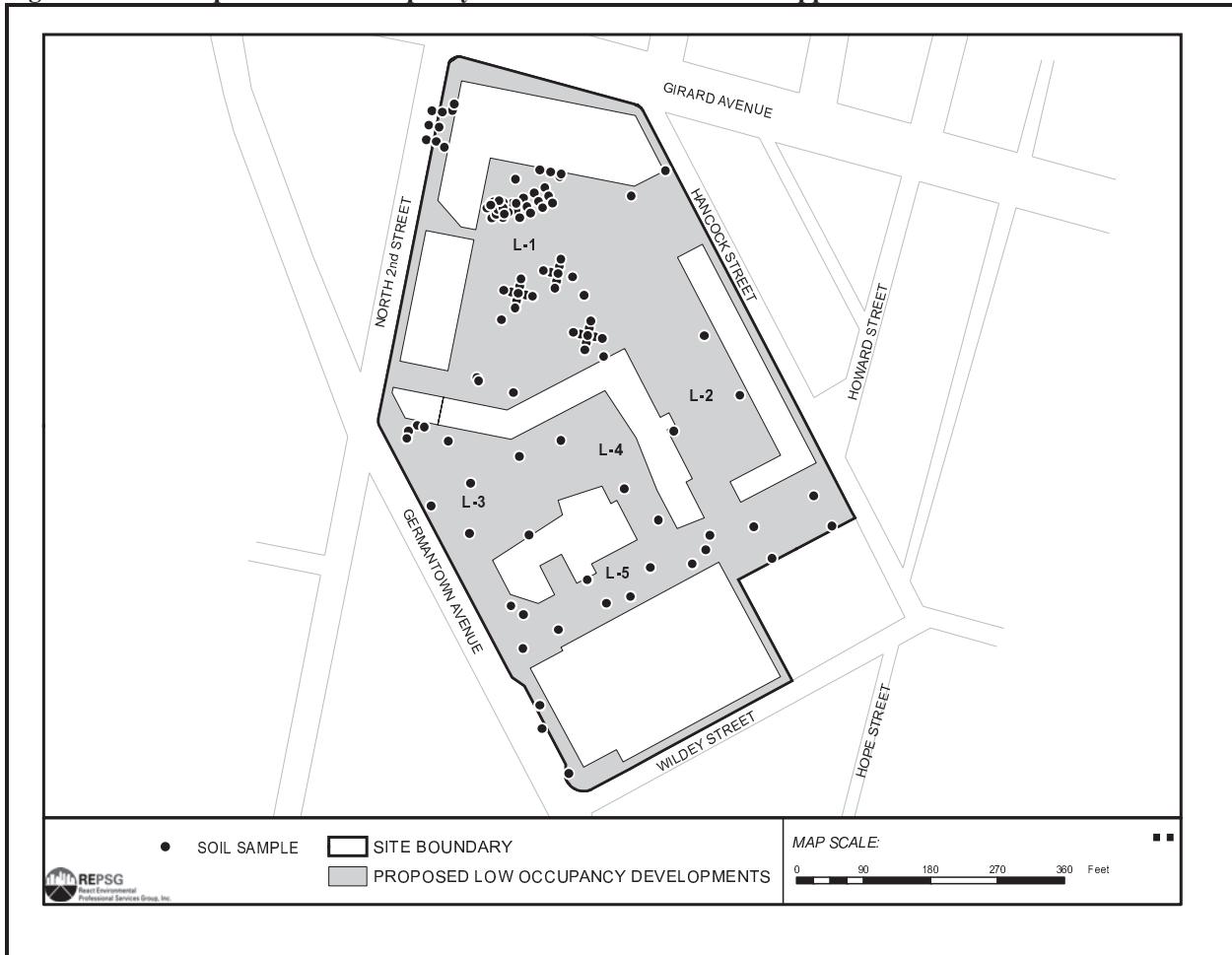
SAMPLE:	SAMPLE DATE:	SAMPLE DEPTH (fbg):	ANALYTICAL RESULTS Total PCBs (ppm):
TP-002	24-Oct-02	4.0	0.33
TP-002	24-Oct-02	16.0	ND
TP-008	24-Oct-02	4.0	ND
TP-008	24-Oct-02	16.0	ND
TP-009	24-Oct-02	4.0	0.34
TP-009	24-Oct-02	16.0	ND
VA-PE-002	25-Apr-05	12.0	0.28D
VA-PE-003	25-Apr-05	12.0	0.36D
VA-PE-004	25-Apr-05	12.0	0.092
VA-PE-005	25-Apr-05	12.0	< 0.05
VA-PE-006	25-Apr-05	12.0	< 0.05
VA-PE-007	25-Apr-05	14.0	0.55D
VA-PE-008	25-Apr-05	14.0	4.3D
VA-PE-009	25-Apr-05	14.0	0.094
VA-PE-011	25-Apr-05	14.0	0.87D
VA-PE-012	25-Apr-05	14.0	0.45D
VB-PE-006	26-Apr-05	10.0	< 0.05
VB-PE-007	26-Apr-05	12.0	0.24D
B-005G	18-Aug-05	18.0	< 0.05
B-006G	18-Aug-05	18.0	< 0.05
B-009G	18-Aug-05	11.5	0.26D
B-010G	18-Aug-05	8.5	< 0.05
B-011G	18-Aug-05	13.0	< 0.05
VA-PE-001A	18-Aug-05	11.5	< 0.05
VA-PE-001C	18-Aug-05	12.0	3.8D
VA-PE-010B	18-Aug-05	11.5	< 0.05
AOC4B-001	1-Sep-05	3.5	0.64D
B-004	1-Sep-05	0.5	< 0.05
B-004	1-Sep-05	12.0	< 0.05
B-006	1-Sep-05	0.5	20E
B-006	1-Sep-05	8.0	0.089
B-010	1-Sep-05	0.5	1.6D
B-010	1-Sep-05	12.0	< 0.05
B-005	2-Sep-05	0.5	14D
B-007	2-Sep-05	0.5	< 0.5
B-016	2-Sep-05	0.5	11.8D
B-017	2-Sep-05	0.5	25D

B-018	2-Sep-05	0.5	20E
B-019	2-Sep-05	0.5	0.8D
B-020	2-Sep-05	0.5	< 0.5
B-021	2-Sep-05	0.5	0.64D
B-024	2-Sep-05	0.5	1.1D
B-025	2-Sep-05	0.5	7.4D
B-026	2-Sep-05	0.5	7.4D
B-027	2-Sep-05	0.5	12D
B-028	2-Sep-05	0.5	< 0.5
B-029	2-Sep-05	0.5	2D
B-030	2-Sep-05	0.5	5.9D
B-031	2-Sep-05	0.5	10D
B-032	2-Sep-05	0.5	0.89D
B-033	2-Sep-05	0.5	2.2E
B-034	2-Sep-05	0.5	9.6D
B-037	2-Sep-05	0.5	34D
B-038	2-Sep-05	0.5	4.1D
B-040	2-Sep-05	0.5	7.3D
B-048	2-Sep-05	0.5	16.2D
B-036A	23-Sep-05	0.5	6.5D
B-036B	23-Sep-05	0.5	11D
B-036C	23-Sep-05	0.5	7.5D
B-036D	23-Sep-05	0.5	3.8D
B-036E	23-Sep-05	0.5	3.8D
B-036F	23-Sep-05	0.5	9.6D
B-036G	23-Sep-05	0.5	5.7D
B-036H	23-Sep-05	0.5	5.5D
B-036I	23-Sep-05	2.0	5.7D
B-039C	23-Sep-05	0.5	< 0.5
B-039D	23-Sep-05	0.5	0.92D
B-039E	23-Sep-05	0.5	< 2.5
B-039F	23-Sep-05	0.5	3D
B-041A	23-Sep-05	0.5	5.4D
B-041B	23-Sep-05	0.5	3.8D
B-041D	23-Sep-05	0.5	14.9D
B-041E	23-Sep-05	0.5	9.6
B-041F	23-Sep-05	0.5	15E
B-041G	23-Sep-05	0.5	5.7E
B-041H	23-Sep-05	0.5	10E
B-041I	23-Sep-05	2.0	12E
B-042A	23-Sep-05	0.5	16D
B-042B	23-Sep-05	0.5	29D
B-042C	23-Sep-05	0.5	9.6D
B-042D	23-Sep-05	0.5	< 2.5
B-042E	23-Sep-05	0.5	3.8D
B-042F	23-Sep-05	0.5	2.5D

B-042G	23-Sep-05	0.5	6.2D
B-042H	23-Sep-05	0.5	< 2.5
B-042I	23-Sep-05	2.0	8.7D
AOC3-PE-001	3-Oct-05	14.0	< 0.5
AOC3-PE-002	3-Oct-05	14.0	0.81D
AOC3-PE-003	3-Oct-05	14.0	11E
AOC3-PE-004	3-Oct-05	14.0	< 0.05
AOC3-PE-005	3-Oct-05	14.0	< 0.05
AOC3-PE-006	3-Oct-05	14.0	0.53D
AOC3-PE-007	3-Oct-05	14.0	7.7D
AOC3-PE-008	3-Oct-05	14.0	< 0.5
AOC3-PE-009	3-Oct-05	14.0	< 2.5
AOC3-PE-010	3-Oct-05	14.0	< 2.5
AOC3-PE-011	3-Oct-05	14.0	2.9D
AOC3-PE-012	3-Oct-05	14.0	3.3D
AOC2-006	4-Oct-05	14.0	< 0.5
AOC4A-001	5-Oct-05	17.0	0.16
AOC2-007	7-Nov-05	18.0	< 1.1
AOC2-008	7-Nov-05	16.0	0.09
AOC2-009	7-Nov-05	16.0	< 0.1
AOC2-010	7-Nov-05	18.0	0.21
AOC2-011	7-Nov-05	18.0	< 0.14
AOC2-012	7-Nov-05	18.0	< 0.1
AOC2-PE-032	25-May-06	19.0	0.12
SB-210	16-Oct-07	3.0	2.6D
SB-212	16-Oct-07	3.0	3.8D
SB-201	16-Oct-07	12.0	< 0.012
SB-204	16-Oct-07	8.0	< 0.012
SB-205	16-Oct-07	6.0	8D
SB-206	16-Oct-07	4.0	3.4D
SB-207	16-Oct-07	6.0	3.5D
SB-208	16-Oct-07	3.0	3.7D

QUALIFIERS: ≤ = Indicates that the reported concentration is below the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. ND = Indicates that the concentration is below MDL, which is unknown.

Figure 9: Soil Samples in Low Occupancy Areas and Total PCBs ≤100 ppm



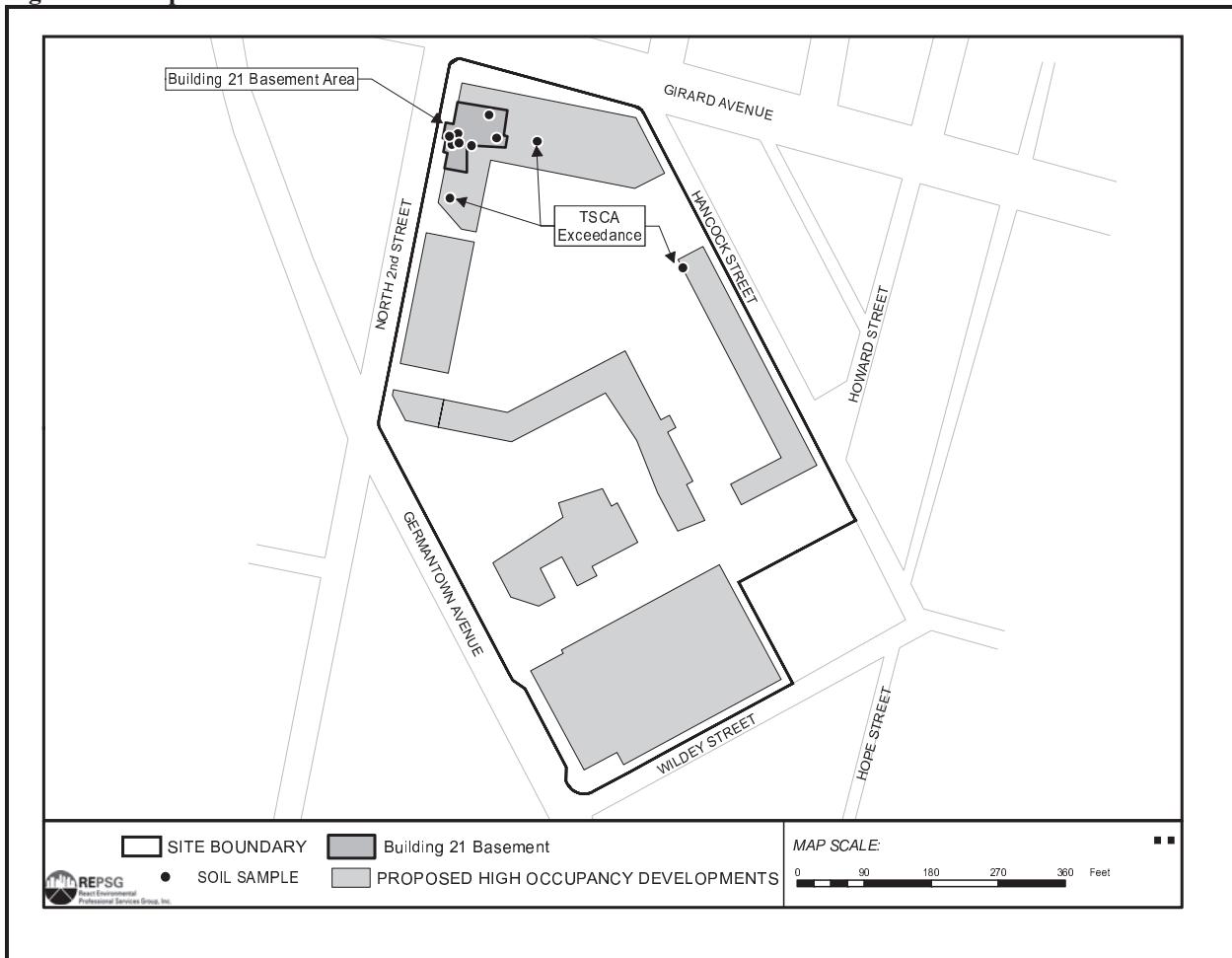
## 6.0 SAMPLING PLAN

The proposed sampling plan has been designed in accordance with the investigation recommendations outlined in the EPA document: "Polychlorinated Biphenyl (PCB) Site Revitalization Guidance Under the Toxic Substances Control Act (TSCA)". The sampling plan includes plans for the delineation of four (4) specific areas of the site, including three (3) locations in the shallow soil profile and an area in the deeper soil profile in the Building 21 basement area. These locations were identified during the previous site-wide soils investigation. The sampling plan for the delineation of the three (3) locations in the shallow soil profile is included in this summary, along with the plans for the investigation of a previously uncharacterized area. The sample plan for the investigation of the deeper soil profile in the Building 21 basement area will be presented after the completion of the delineation and investigation proposed in this sampling plan.

### 6.1 Proposed Delineation

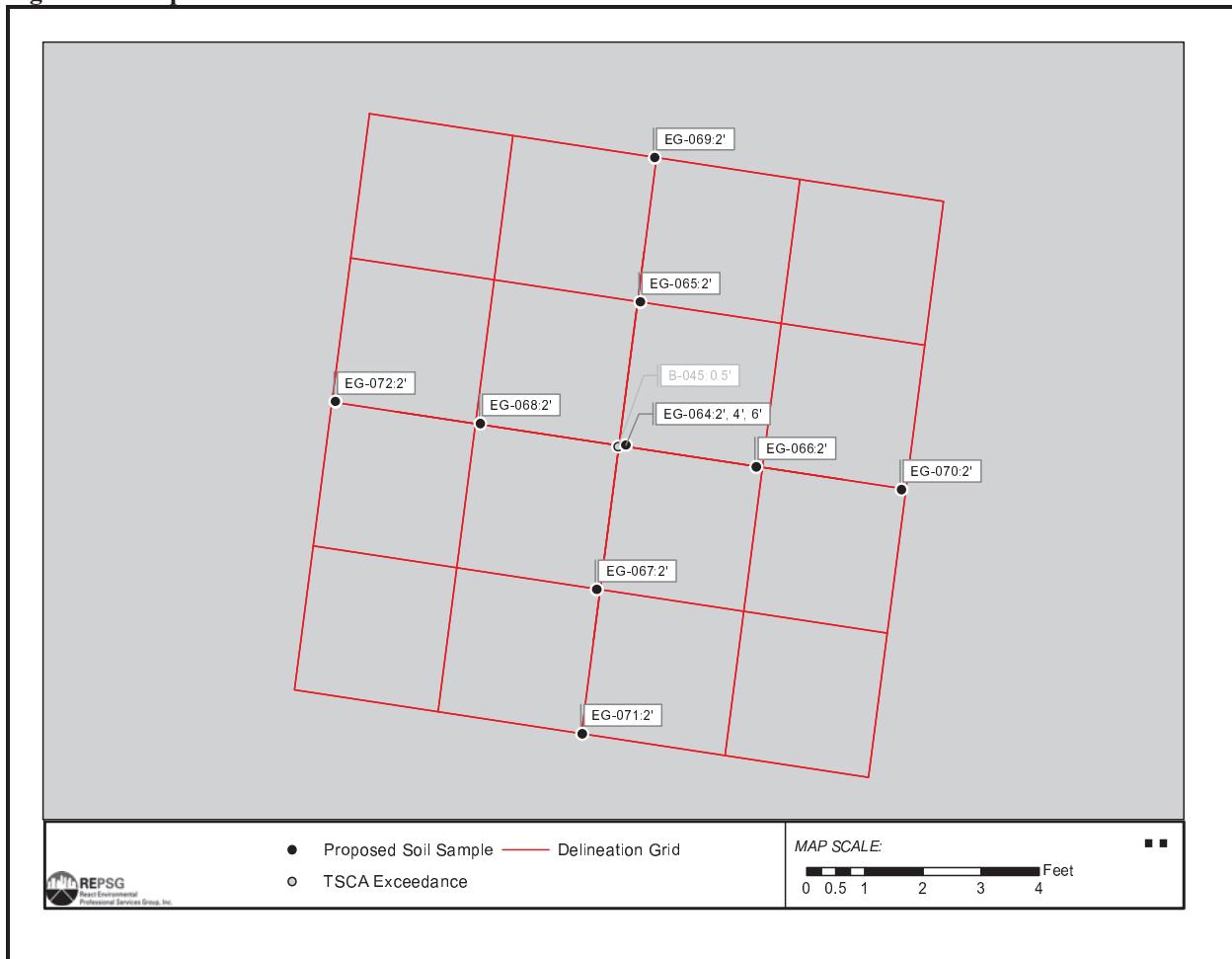
During the previous soil investigations there were four (4) specific areas containing soil samples in exceedance of TSCA remediation standards based on the expected future high or low occupancy site use pursuant to the proposed development plan. These areas include three (3) areas with PCB surface impacts, and an area in the northwest corner of the site, with impacts at multiple depths (this was the previous Building 21 basement area). A delineation grid will be utilized for the three surface soils areas which were identified at borings: B-035, B-045, and B-046 (all three of these impacted sample locations were collected at 0.5 fbg). The locations of these three samples and the Building 21 basement area are depicted in **Figure 10**, below.

Figure 10: Proposed Delineation Areas



A 10' x 10' grid with 2.5'-sampling intervals will be implemented around the three (3) surface locations to provide for the necessary horizontal delineation. This gridding scheme would allow for two concentric rings of horizontally delineating samples, located 2.5' and 5' around the location. In addition to this grid sampling scheme, which will provide the necessary horizontal delineation, a vertical delineation program that will include the collection of three (3) samples directly beneath the surface impact will be implemented. These samples will be located at depths of 2, 4, and 6 fbg to provide for delineation of PCB impacted soils to these depths. **Figure 11** depicts the horizontal and vertical delineation plan for these three (3) areas.

Figure 11: Proposed Delineation Grid for Shallow Locations

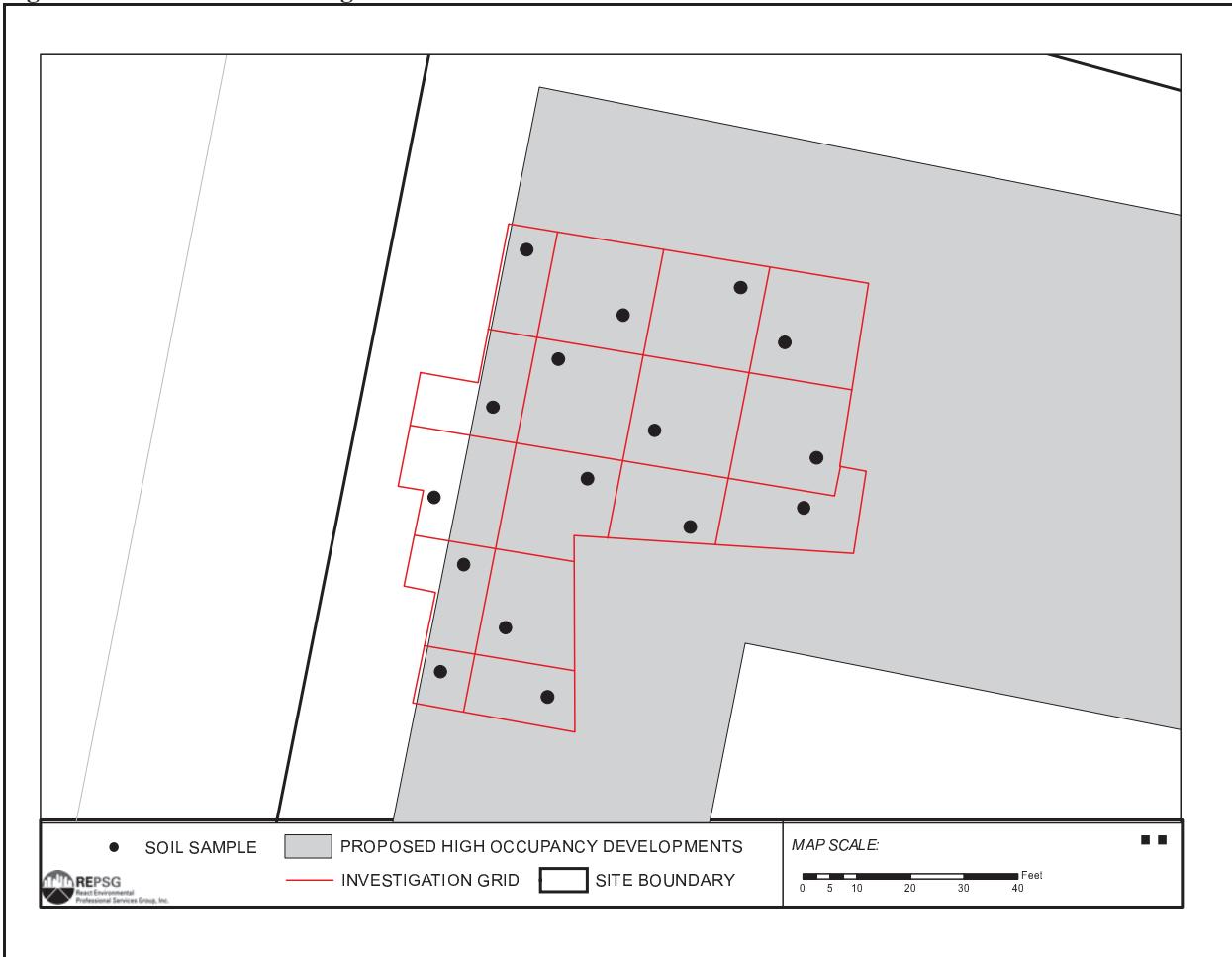


The delineation of the Building 21 basement area will be conducted after the investigation of the infilled soils, as described in **Section 6.2**, which are located above the PCB impacts associated with the Building 21 basement.

## 6.2 Investigation of Infilled Soil

The infilled soil area targeted for further characterization includes the soils which were used as infill into a hole whose precise dimensions are well known. Therefore, the exact size of the uncharacterized soils is well known. These soils are targeted for additional characterization since they were previously tested via composite sampling methodology only. The investigation of these infilled soils will be based upon a 20' x 20' grid which has been drawn across the length and width of this clearly defined area. Borings will be located randomly within these 20' x 20' grid areas, as depicted in **Figure 12**.

Figure 12: Infilled Soil Investigation



The depth at which these soil samples will be collected will be randomized so that the soil samples are collected from random depths within the well documented infilled soil area.

#### **APPENDIX A – ADDITIONAL FIGURES**

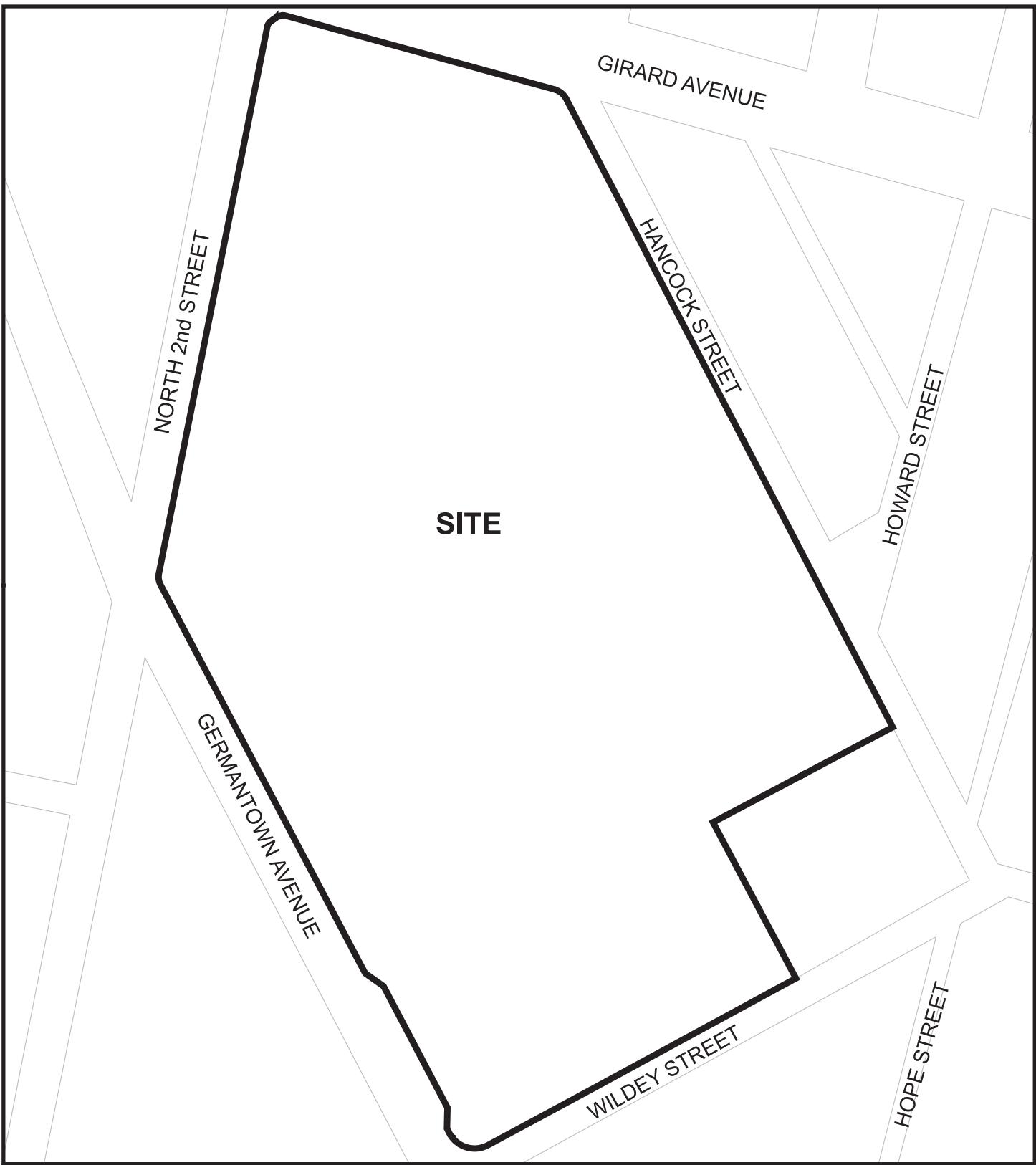


FIGURE 1: SITE DIAGRAM



SITE BOUNDARY



PROJECT NAME: FORMER SCHMIDT'S BREWERY  
PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA  
PROJECT NUMBER: 006651  
DATE: JULY 2008



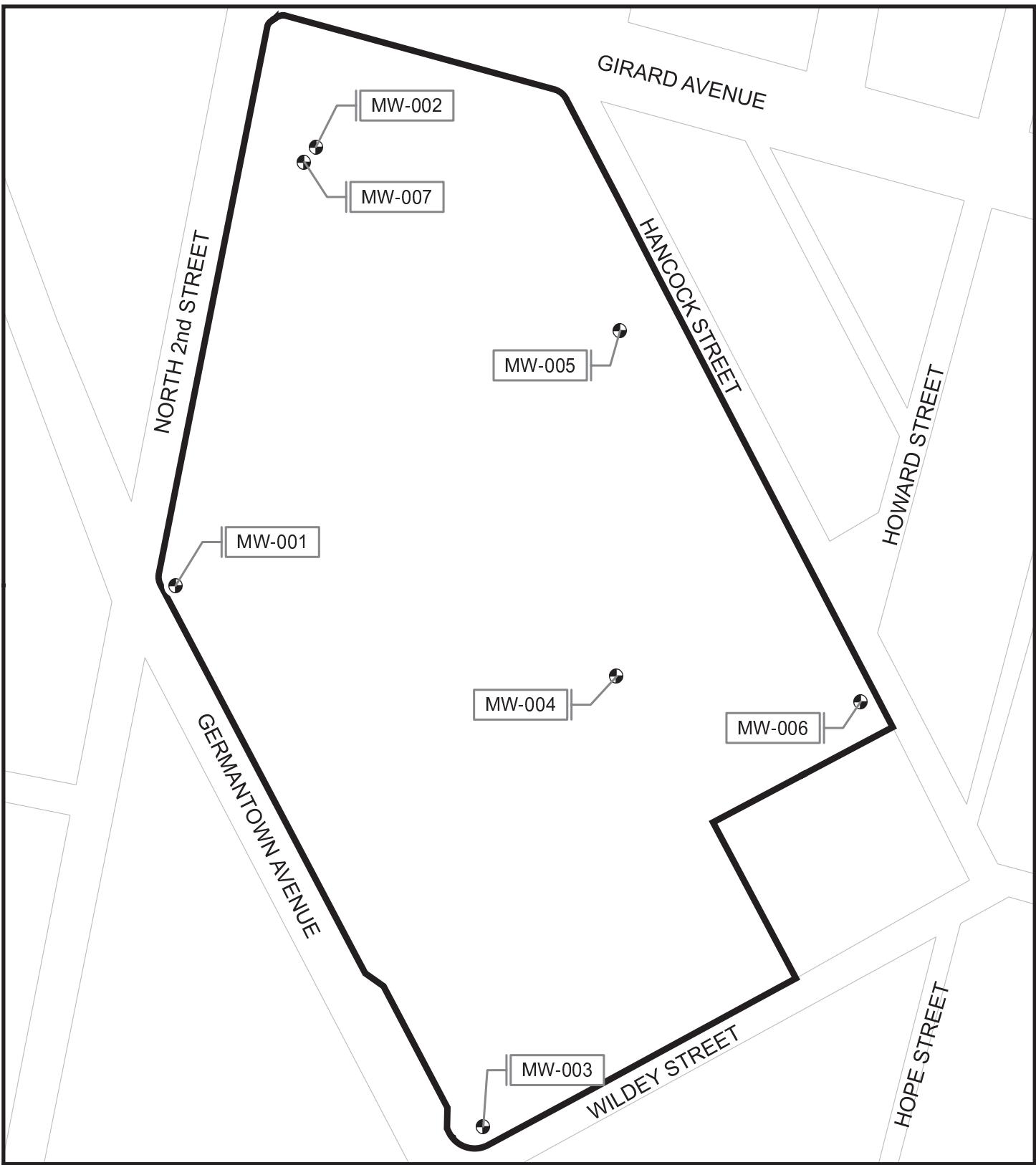


FIGURE 2: MONITORING WELL LOCATION MAP

● MONITORING WELL    ■ SITE BOUNDARY



**REPSG**

React Environmental  
Professional Services Group, Inc.

MAP SCALE: 1 inch equals 120 feet  
0 25 50 100 150 200 Feet

PROJECT NAME: FORMER SCHMIDT'S BREWERY

PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

PROJECT NUMBER: 006651

DATE: JULY 2008



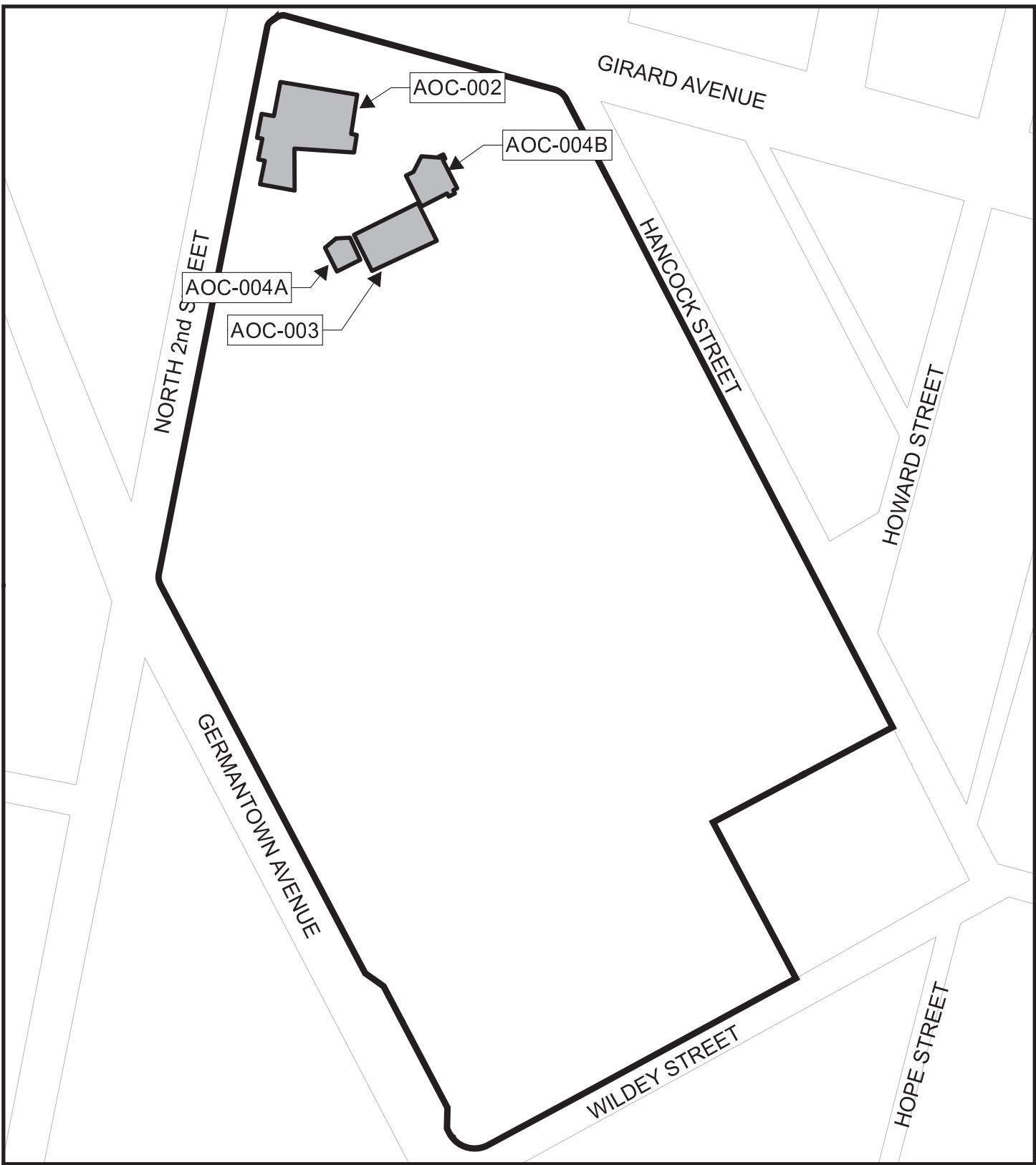


FIGURE 3: AREAS OF CONCERN



AOC



SITE BOUNDARY



**REPSG**

React Environmental  
Professional Services Group, Inc.

MAP SCALE: 1 inch equals 120 feet  
0 25 50 100 150 200 Feet

PROJECT NAME: FORMER SCHMIDT'S BREWERY

PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

PROJECT NUMBER: 006651

DATE: JULY 2008



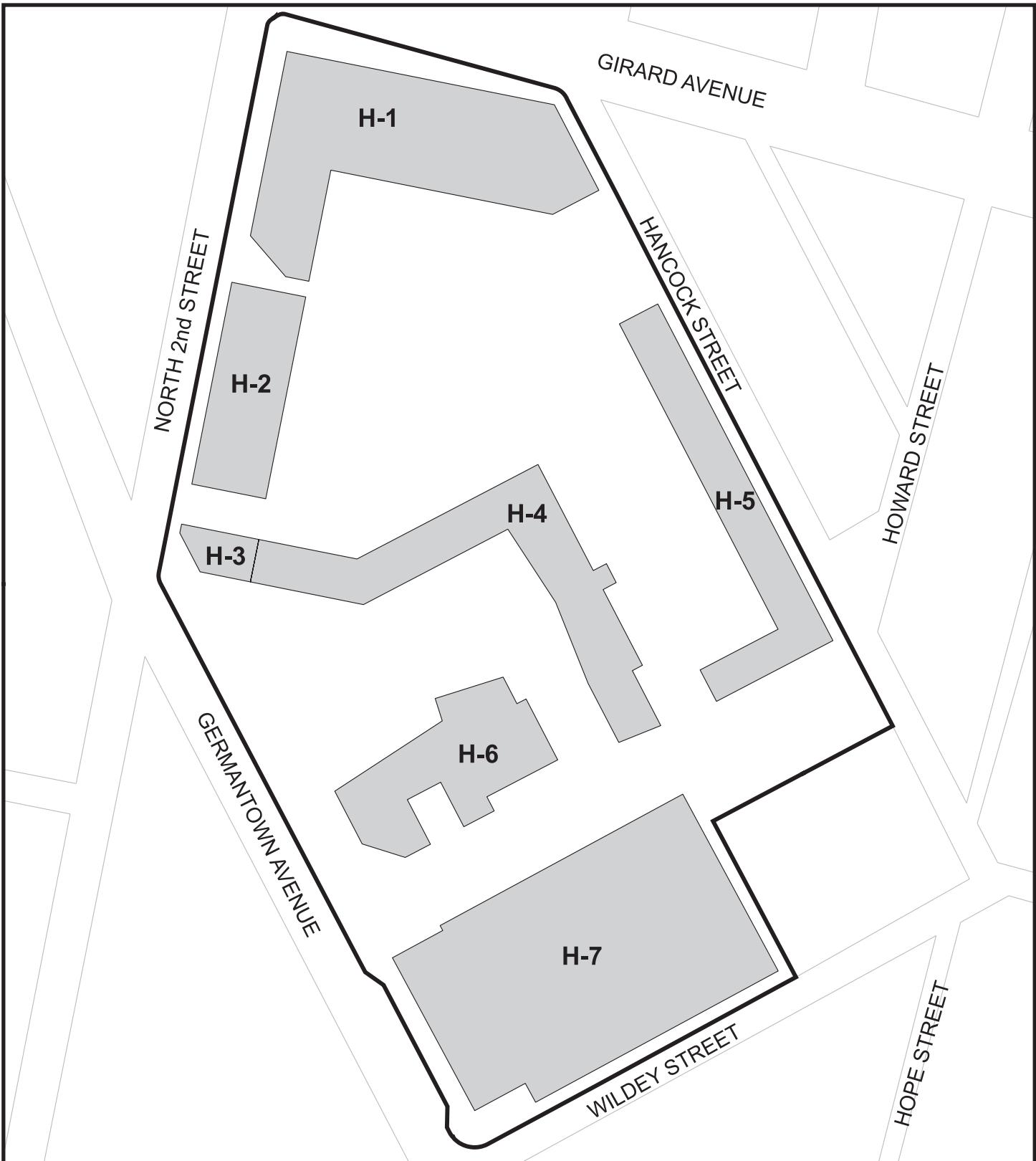


FIGURE 4: PROPOSED HIGH OCCUPANCY DEVELOPMENTS



SITE BOUNDARY



PROPOSED HIGH OCCUPANCY DEVELOPMENTS



**REPSG**

React Environmental  
Professional Services Group, Inc.

MAP SCALE: 1 inch equals 120 feet  
0 25 50 100 150 200 Feet

PROJECT NAME: FORMER SCHMIDT'S BREWERY

PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

PROJECT NUMBER: 006651

DATE: JULY 2008



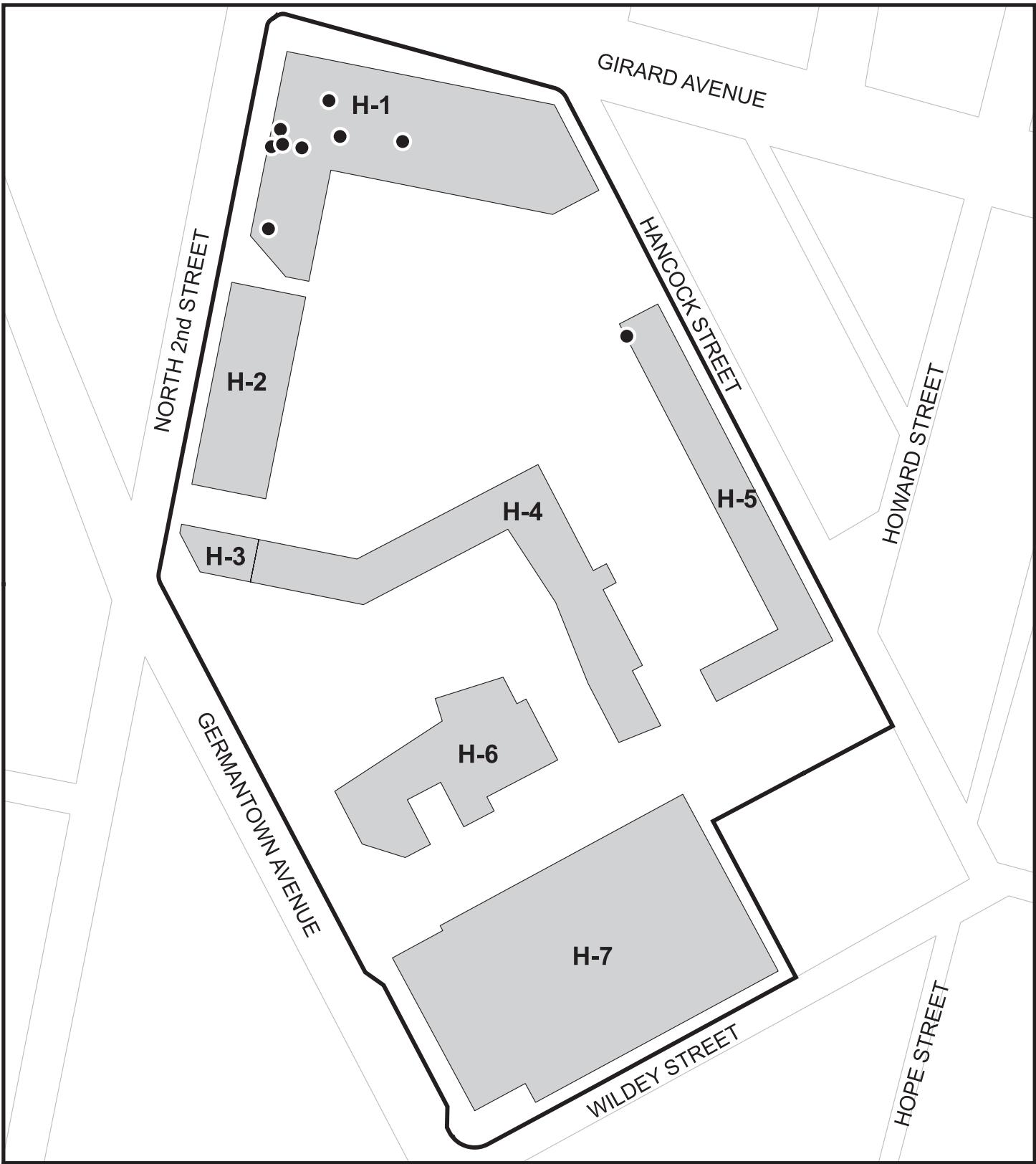


FIGURE 5: SOIL SAMPLES IN HIGH OCCUPANCY AREAS AND TOTAL PCBs >10 PPM

- SOIL SAMPLE
- SITE BOUNDARY
- PROPOSED HIGH OCCUPANCY DEVELOPMENTS



**REPSG**

React Environmental  
Professional Services Group, Inc.

MAP SCALE: 1 inch equals 120 feet  
0 25 50 100 150 200 Feet

PROJECT NAME: FORMER SCHMIDT'S BREWERY

PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

PROJECT NUMBER: 006651

DATE: JULY 2008



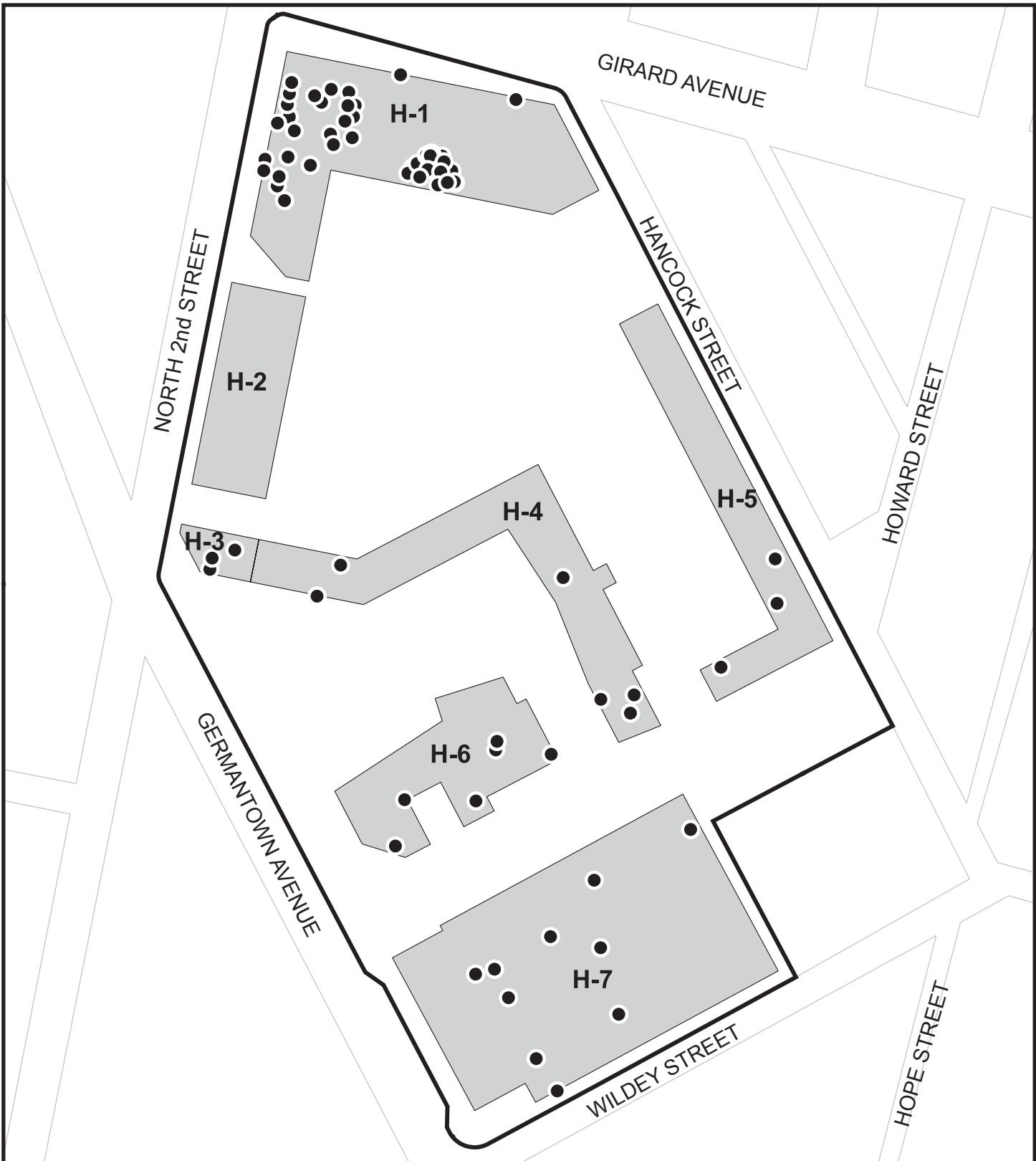


FIGURE 6: SOIL SAMPLES IN HIGH OCCUPANCY AREAS AND TOTAL PCBs  $\leq 10$  PPM

- SOIL SAMPLE
- SITE BOUNDARY
- PROPOSED HIGH OCCUPANCY DEVELOPMENTS



**REPSG**

React Environmental  
Professional Services Group, Inc.

MAP SCALE: 1 inch equals 120 feet  
0 25 50 100 150 200 Feet

PROJECT NAME: FORMER SCHMIDT'S BREWERY

PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

PROJECT NUMBER: 006651

DATE: JULY 2008



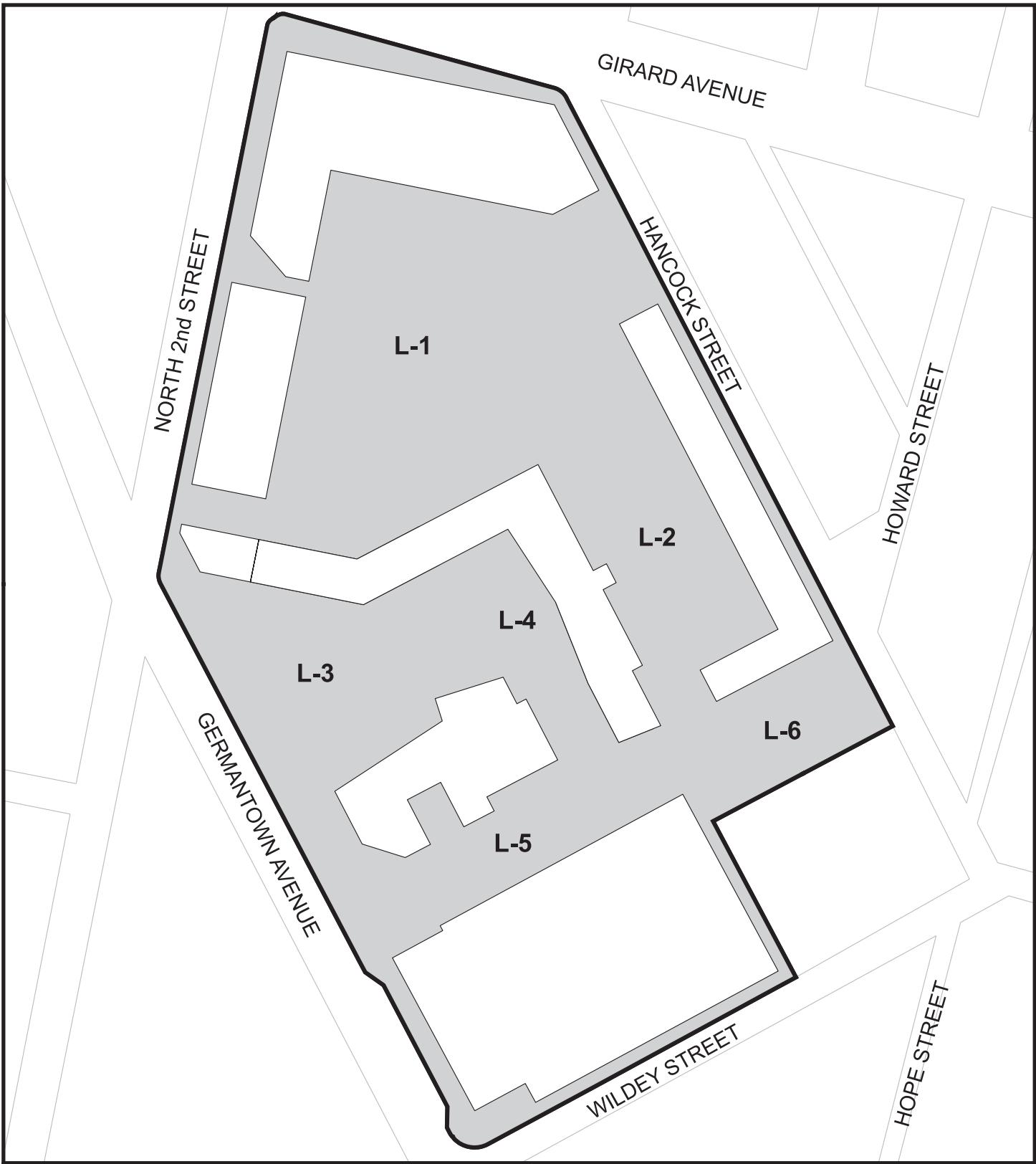


FIGURE 7: PROPOSED LOW OCCUPANCY DEVELOPMENTS

SITE BOUNDARY PROPOSED LOW OCCUPANCY DEVELOPMENTS



**REPSG**

React Environmental  
Professional Services Group, Inc.

MAP SCALE: 1 inch equals 120 feet  
0 25 50 100 150 200 Feet

PROJECT NAME: FORMER SCHMIDT'S BREWERY

PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

PROJECT NUMBER: 006651

DATE: JULY 2008



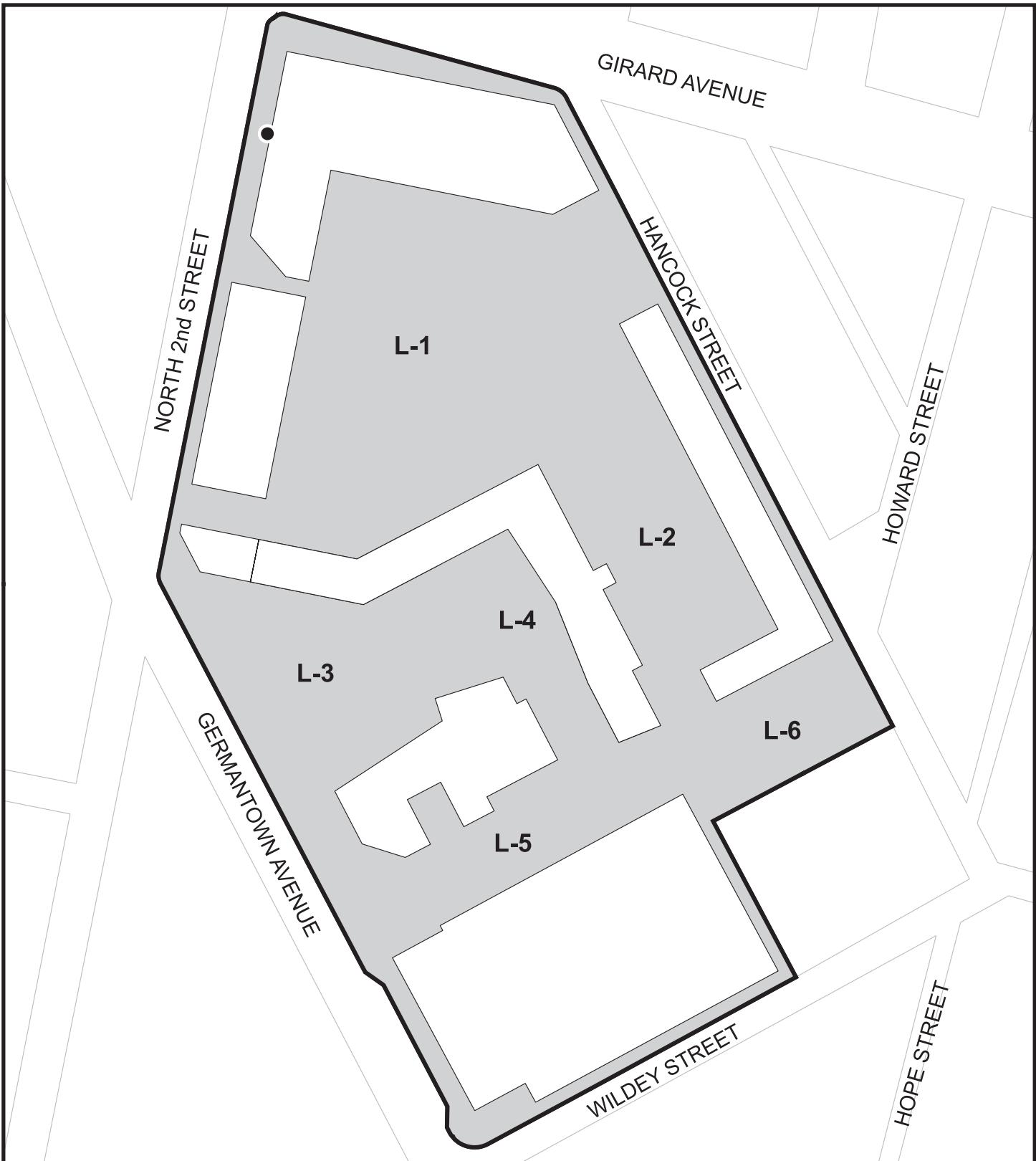


Figure 8: SOIL SAMPLES IN LOW OCCUPANCY AREAS AND TOTAL PCBs >100 PPM

- SOIL SAMPLE    □ SITE BOUNDARY    ■ PROPOSED LOW OCCUPANCY DEVELOPMENTS



**REPSG**

React Environmental  
Professional Services Group, Inc.

MAP SCALE: 1 inch equals 120 feet  
0 25 50 100 150 200 Feet

PROJECT NAME: FORMER SCHMIDT'S BREWERY

PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

PROJECT NUMBER: 006651

DATE: JULY 2008



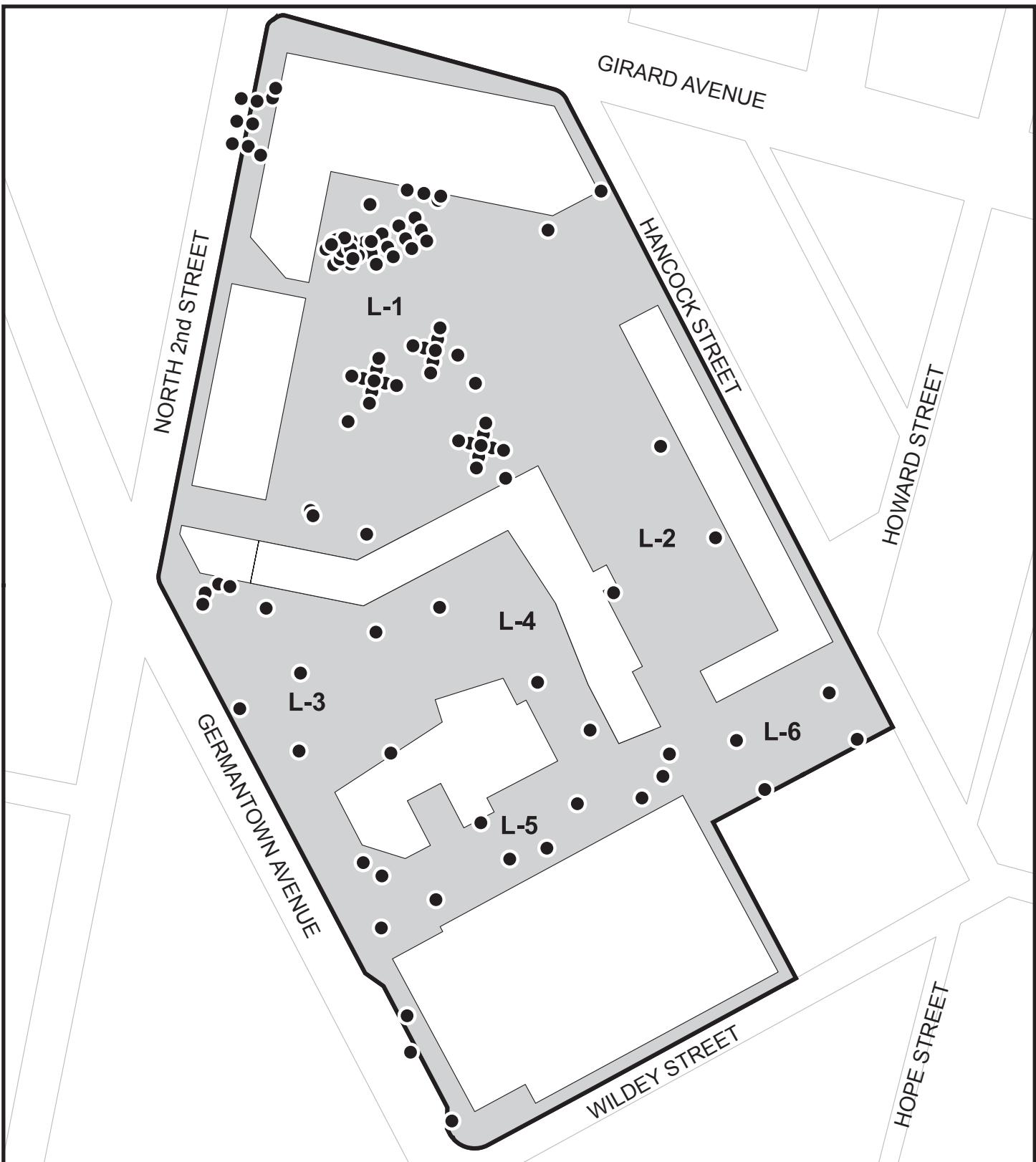


FIGURE 9: SOIL SAMPLES IN LOW OCCUPANCY AREAS AND TOTAL PCBs  $\leq 100$  ppm

● SOIL SAMPLE    ■ SITE BOUNDARY    ■ PROPOSED LOW OCCUPANCY DEVELOPMENTS



**REPSG**

React Environmental  
Professional Services Group, Inc.

MAP SCALE: 1 inch equals 120 feet  
0 25 50 100 150 200 Feet

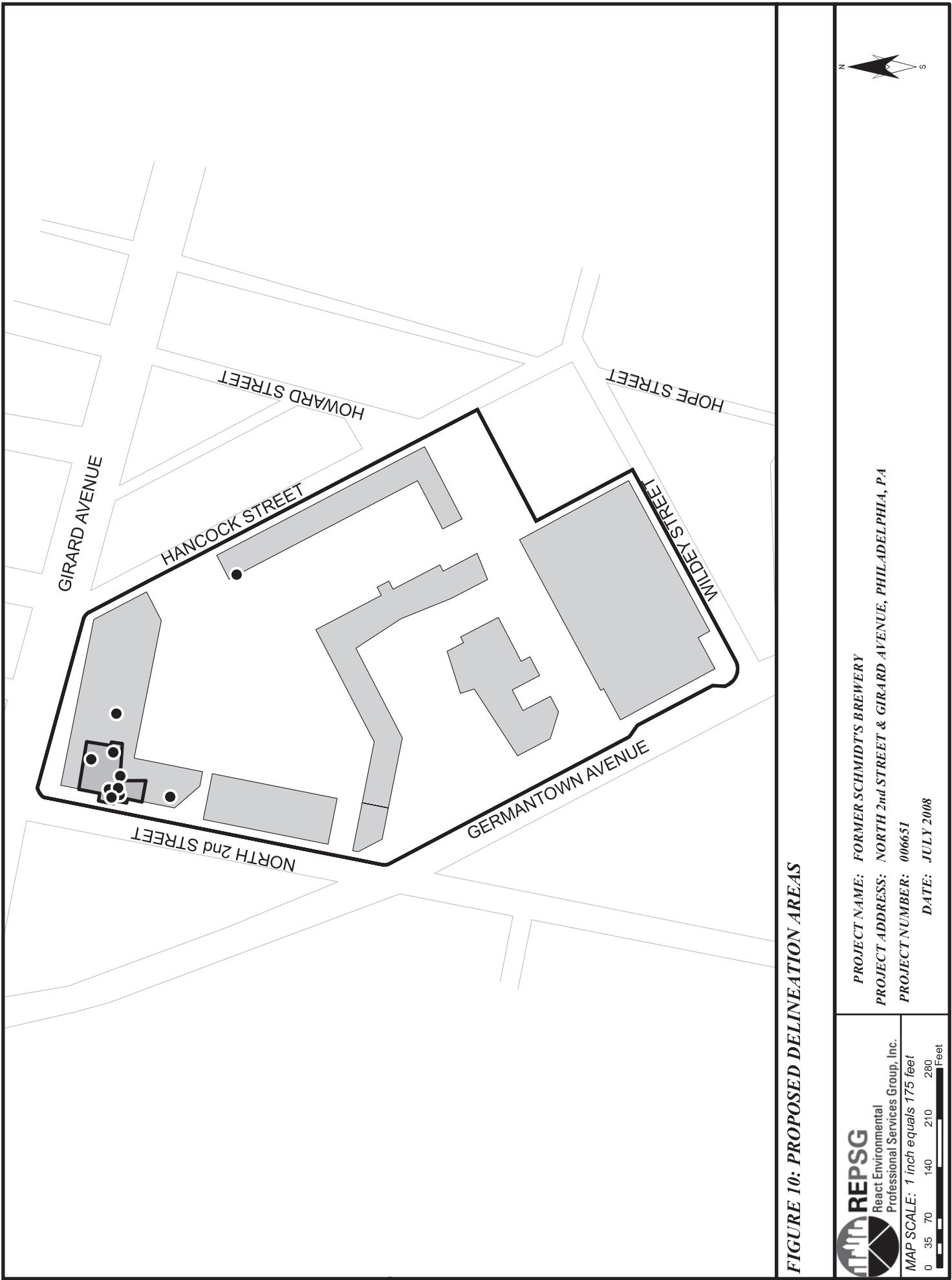
PROJECT NAME: FORMER SCHMIDT'S BREWERY

PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

PROJECT NUMBER: 006651

DATE: JULY 2008





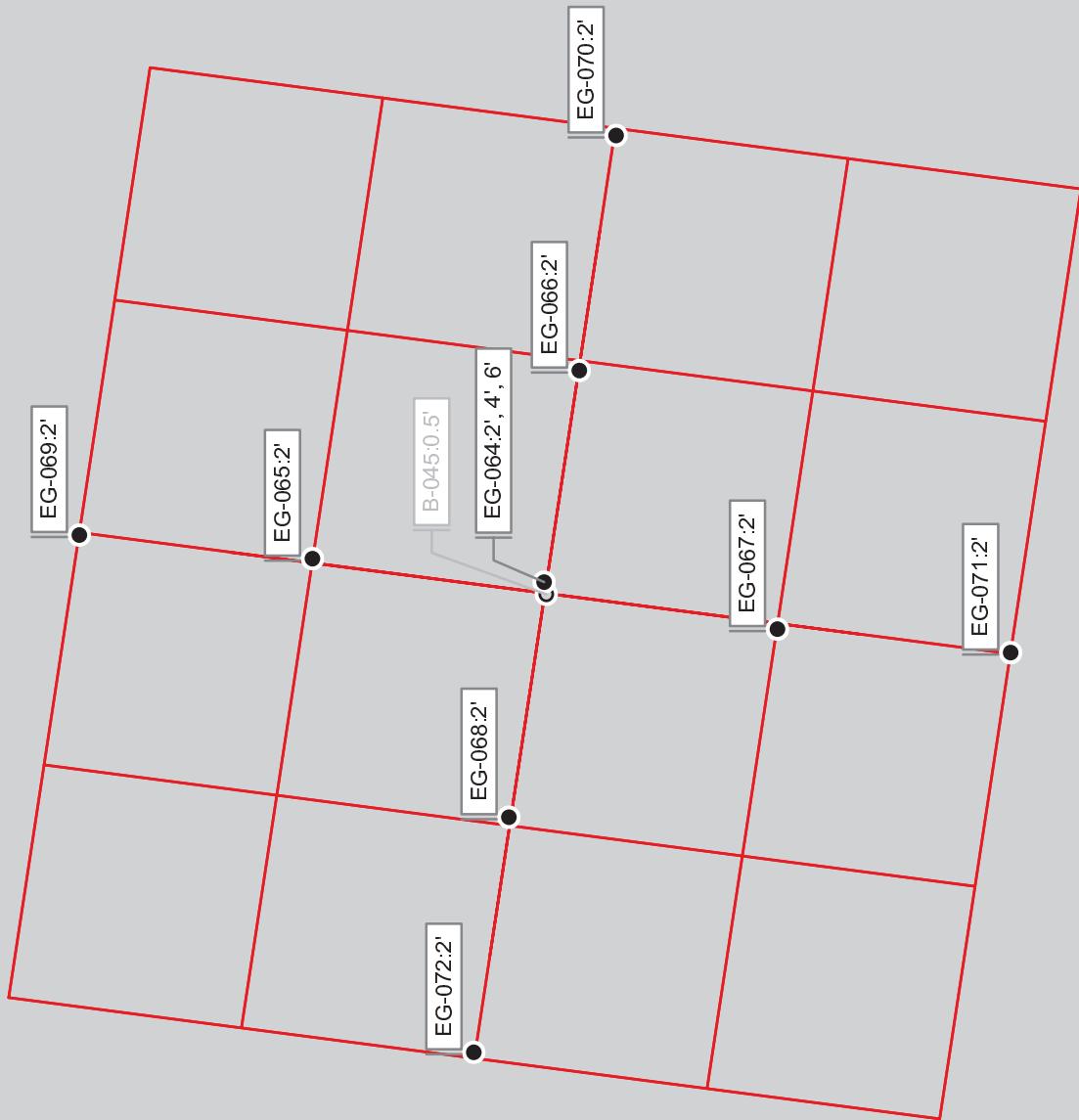
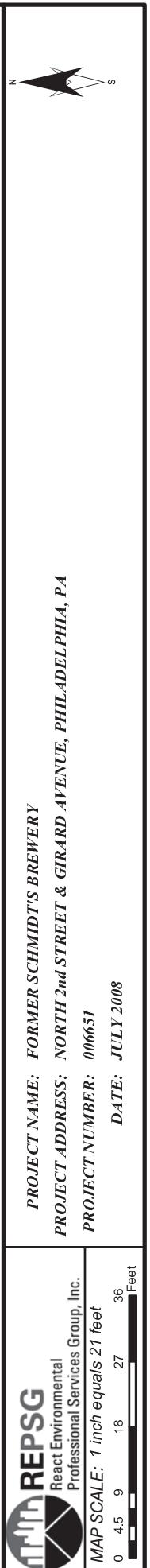


FIGURE 11: PROPOSED DELINEATION GRID FOR SHALLOW LOCATIONS



MAP SCALE: 1 inch equals 2 feet	0 0.4 0.8 1.6 2.4 3.2 Feet
PROJECT NAME: FORMER SCHMIDT'S BREWERY PROJECT ADDRESS: NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA PROJECT NUMBER: 006651 DATE: JULY 2008	

**FIGURE 12: INFILLED SOIL INVESTIGATION**



## **APPENDIX B – ANALYTICAL SUMMARY TABLES**



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 11

## ANALYTICAL CHEMISTRY REPORT

### MATRIX: SOIL

#### METHODS:

EPA Method 160.3 - Total Residue by Drying Oven  
EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-001 10/04/2005	AOC2-002 10/04/2005	AOC2-003 10/04/2005	AOC2-004 10/04/2005	AOC2-005 10/04/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	4.00	4.00	4.00	4.00	14.00
			SAMPLE LOCATION: SAMPLE DATE:	88.1	86.5	86.2	86.7	92.3
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-006 10/04/2005	AOC2-007 11/07/2005	AOC2-007 11/07/2005	AOC2-007 11/07/2005	AOC2-008 11/07/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	14.00	4.00	6.00	18.00	6.00
			SAMPLE LOCATION: SAMPLE DATE:	92	83.4	83.2	92.3	81.7
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-008 11/07/2005	AOC2-009 11/07/2005	AOC2-009 11/07/2005	AOC2-010 11/07/2005	AOC2-010 11/07/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	16.00	6.00	16.00	6.00	18.00
				91.5	73.2	87.7	84.9	74.7

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 2 of 11

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-011	AOC2-011	AOC2-012	AOC2-012
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	11/07/2005	11/07/2005	11/07/2005	11/07/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	4.00	6.00	18.00	18.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-013	AOC2-013	AOC2-014	AOC2-014
Total Solids		160.3 (%)	SAMPLE DATE:	11/07/2005	11/07/2005	11/07/2005	11/07/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	12.00	18.00	12.00	18.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-015	AOC2-016	AOC2-016	AOC2-016
Total Solids		160.3 (%)	SAMPLE DATE:	11/07/2005	11/07/2005	11/07/2005	11/07/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	18.00	6.00	20.00	6.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-019	AOC2-019	AOC2-020	AOC2-020
Total Solids		160.3 (%)	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	17.00	18.50	6.00	14.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-020	AOC2-021	AOC2-021	AOC2-021
Total Solids		160.3 (%)	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	18.50	6.00	12.00	16.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-020	AOC2-021	AOC2-021	AOC2-021
Total Solids		160.3 (%)	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 3 of 11

**ANALYTICAL CHEMISTRY REPORT****EPA Method 160.3 - Total Residue by Drying Oven**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-022	AOC2-022	AOC2-022	AOC2-023
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	6.00	10.00	16.00	6.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-023	AOC2-023	AOC2-023	AOC2-024
Total Solids		160.3 (%)	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	12.00	16.00	18.50	12.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-024	AOC2-024	AOC2-025	AOC2-025
Total Solids		160.3 (%)	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	16.00	18.50	8.00	16.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-025	AOC2-026	AOC2-026	AOC2-026
Total Solids		160.3 (%)	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	18.50	6.00	12.00	18.50
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-027	AOC2-027	AOC2-027	AOC2-028
Total Solids		160.3 (%)	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	6.00	12.00	16.00	6.00
Total Solids		160.3 (%)		84.1	85.9	94.6	89.6

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 4 of 11

**EPA Method 160.3 - Total Residue by Drying Oven**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-028 01/11/2007	AOC2-028 01/11/2007	AOC2-028 01/11/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg)	12.00	16.00	18.50

**EPA Method 8082 - Polychlorinated Biphenyls**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-001 10/04/2005	AOC2-002 10/04/2005	AOC2-003 10/04/2005	AOC2-004 10/04/2005	AOC2-005 10/04/2005
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (fbg)	4.00 <1.9UD	4.00 <2.5UD	4.00 <250UD	4.00 <0.50UD	4.00 <2.5UD
PCB (Aroclor 1221)	8082	(mg/kg)		<1.9UD	<2.5UD	<250UD	<0.50UD	<2.5UD
PCB (Aroclor 1232)	8082	(mg/kg)		<1.9UD	<2.5UD	<250UD	<0.50UD	<2.5UD
PCB (Aroclor 1242)	8082	(mg/kg)		<1.9UD	<2.5UD	<250UD	<0.50UD	<2.5UD
PCB (Aroclor 1248)	8082	(mg/kg)		<1.9UD	<2.5UD	<250UD	<0.50UD	<2.5UD
PCB (Aroclor 1254)	8082	(mg/kg)		<1.9UD	<2.5UD	<250UD	<0.50UD	<2.5UD
PCB (Aroclor 1260)	8082	(mg/kg)		12DE	<2.5UD	3500DE	0.54D	<2.5UD
PCB( Total Aroclors)	8082	(mg/kg)		12E	<2.5UD	3500E	0.54D	<2.5UD
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-006 10/04/2005	AOC2-007 11/07/2005	AOC2-007 11/07/2005	AOC2-008 11/07/2005	AOC2-008 11/07/2005
			SAMPLE DEPTH (fbg)	14.00 <0.50UD	4.00 <0.094U	6.00 <0.092U	18.00 <1.1UD	6.00 <0.092U
PCB (Aroclor 1016)	8082	(mg/kg)		<0.50UD	<0.094U	<0.092U	<1.1UD	<0.092U
PCB (Aroclor 1221)	8082	(mg/kg)						

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-006	AOC2-007	AOC2-007	AOC2-008
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	10/04/2005	11/07/2005	11/07/2005	11/07/2005
SAMPLE DEPTH (fbg)							
PCB (Aroclor 1222)	8082	(mg/kg)	<0.50UD	<0.094U	<0.092U	<1.1UD	<0.092U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.50UD	<0.094U	<0.092U	<1.1UD	<0.092U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.50UD	<0.094U	<0.092U	<1.1UD	<0.092U
PCB (Aroclor 1254)	8082	(mg/kg)	<0.50UD	<0.094U	<0.092U	<1.1UD	<0.092U
PCB (Aroclor 1260)	8082	(mg/kg)	<0.50UD	<0.094U	<0.092U	<1.1UD	<0.092U
PCB( Total Aroclors)	8082	(mg/kg)	<0.50UD	<0.094U	<0.092U	<1.1UD	<0.092U
SAMPLE DEPTH (fbg)							
PCB (Aroclor 1016)	8082	(mg/kg)	<0.050U	<0.13U	<0.10U	<0.10U	<0.14U
PCB (Aroclor 1221)	8082	(mg/kg)	<0.050U	<0.13U	<0.10U	<0.10U	<0.14U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.050U	<0.13U	<0.10U	<0.10U	<0.14U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.050U	<0.13U	<0.10U	<0.10U	<0.14U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.050U	<0.13U	<0.10U	<0.10U	<0.14U
PCB (Aroclor 1254)	8082	(mg/kg)	<0.050U	<0.13U	<0.10U	<0.10U	<0.14U
PCB (Aroclor 1260)	8082	(mg/kg)	0.090	<0.13U	<0.10U	<0.10U	0.21
PCB( Total Aroclors)	8082	(mg/kg)	0.090	<0.13U	<0.10U	<0.10U	0.21

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-011 11/07/2005	AOC2-011 11/07/2005	AOC2-012 11/07/2005	AOC2-012 11/07/2005
SAMPLE DEPTH (ft@g)							
PCB (Aroclor 1016)	8082	(mg/kg)	<10UD	<0.10U	<0.14U	<0.11U	<0.10U
PCB (Aroclor 1221)	8082	(mg/kg)	<10UD	<0.10U	<0.14U	<0.11U	<0.10U
PCB (Aroclor 1232)	8082	(mg/kg)	<10UD	<0.10U	<0.14U	<0.11U	<0.10U
PCB (Aroclor 1242)	8082	(mg/kg)	<10UD	<0.10U	<0.14U	<0.11U	<0.10U
PCB (Aroclor 1248)	8082	(mg/kg)	<10UD	<0.10U	<0.14U	<0.11U	<0.10U
PCB (Aroclor 1244)	8082	(mg/kg)	<10UD	<0.10U	<0.14U	<0.11U	<0.10U
PCB (Aroclor 1260)	8082	(mg/kg)	29D	0.46	<0.14U	<0.11U	<0.10U
PCB( Total Aroclors)	8082	(mg/kg)	29D	0.46	<0.14U	<0.11U	<0.10U
SAMPLE DEPTH (ft@g)							
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-013 11/07/2005	AOC2-013 11/07/2005	AOC2-014 11/07/2005	AOC2-014 11/07/2005
PCB (Aroclor 1016)	8082	(mg/kg)	<5.1UD	<1.0UD	<230UD	<1.2UD	<10UD
PCB (Aroclor 1221)	8082	(mg/kg)	<5.1UD	<1.0UD	<230UD	<1.2UD	<10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<5.1UD	<1.0UD	<230UD	<1.2UD	<10UD
PCB (Aroclor 1242)	8082	(mg/kg)	<5.1UD	<1.0UD	<230UD	<1.2UD	<10UD
PCB (Aroclor 1248)	8082	(mg/kg)	<5.1UD	<1.0UD	<230UD	<1.2UD	<10UD
PCB (Aroclor 1244)	8082	(mg/kg)	<5.1UD	<1.0UD	<230UD	<1.2UD	<10UD
PCB (Aroclor 1260)	8082	(mg/kg)	19D	<1.0UD	580D	<1.2UD	35D
PCB( Total Aroclors)	8082	(mg/kg)	19D	<1.0UD	580D	<1.2UD	35D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 7 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-015	AOC2-016	AOC2-016	AOC2-019
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	11/07/2005	11/07/2005	11/07/2005	01/11/2007
SAMPLE DEPTH (ft@g)							
PCB (Aroclor 1016)	8082	(mg/kg)	<0.10U	<1.0UD	<1.0UD	<0.080UD	<1.6UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.10U	<1.0UD	<1.0UD	<0.10UD	<2.0UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.10U	<1.0UD	<1.0UD	<0.12UD	<2.5UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.10U	<1.0UD	<1.0UD	<0.082UD	<1.6UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.10U	<1.0UD	<1.0UD	<0.058UD	<1.2UD
PCB (Aroclor 1244)	8082	(mg/kg)	<0.10U	<1.0UD	<1.0UD	<1.0UD	1.4D
PCB (Aroclor 1260)	8082	(mg/kg)	<0.10U	2.6D	<1.0UD	1.3D	32D
PCB( Total Aroclors)	8082	(mg/kg)	<0.10U	2.6D	<1.0UD	2.7D	65D
SAMPLE DEPTH (ft@g)							
PCB (Aroclor 1016)	8082	(mg/kg)	<0.080UD	<0.080UD	<1.6UD	<0.080UD	<0.080UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.10UD	<0.10UD	<2.0UD	<0.10UD	<0.10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.12UD	<0.12UD	<2.5UD	<0.12UD	<0.12UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.082UD	<0.082UD	<1.6UD	<0.082UD	<0.082UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.058UD	<0.058UD	<1.2UD	<0.058UD	<0.058UD
PCB (Aroclor 1244)	8082	(mg/kg)	<0.059UD	<0.059UD	35D	1.5D	<0.059UD
PCB (Aroclor 1260)	8082	(mg/kg)	0.091JD	<0.069UD	31D	1.2D	<0.069UD
PCB( Total Aroclors)	8082	(mg/kg)	0.091D	<0.082UD	66D	2.7D	<0.082UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 8 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-020 01/11/2007	AOC2-021 01/11/2007	AOC2-021 01/11/2007	AOC2-021 01/11/2007
			SAMPLE DEPTH (ft@g)				
PCB (Aroclor 1016)	8082	(mg/kg)	<0.080UD	<1.6UD	<0.0080U	<0.0080U	<0.080UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.10UD	>2.0UD	<0.010U	<0.010U	<0.10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.12UD	<2.5UD	<0.012U	<0.012U	<0.12UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.082UD	<1.6UD	<0.0082U	<0.0082U	<0.082UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.058UD	<1.2UD	0.058	<0.0058U	<0.058UD
PCB (Aroclor 1244)	8082	(mg/kg)	<0.059UD	32D	0.13	<0.0059U	<0.059UD
PCB (Aroclor 1260)	8082	(mg/kg)	<0.069UD	30D	0.096	0.0085J	<0.069UD
PCB( Total Aroclors)	8082	(mg/kg)	<0.082UD	62D	0.28	0.0085	<0.082UD
			SAMPLE LOCATION: SAMPLE DATE:	AOC2-022 01/11/2007	AOC2-022 01/11/2007	AOC2-022 01/11/2007	AOC2-023 01/11/2007
			SAMPLE DEPTH (ft@g)				
PCB (Aroclor 1016)	8082	(mg/kg)	<0.80UD	<0.80UD	<0.080UD	<0.080UD	<0.080UD
PCB (Aroclor 1221)	8082	(mg/kg)	<1.0UD	<1.0UD	<0.10UD	<0.10UD	<0.10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<1.2UD	<1.2UD	<0.12UD	<0.12UD	<0.12UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.82UD	<0.82UD	<0.082UD	<0.082UD	<0.082UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.58UD	<0.58UD	0.71D	<0.058UD	0.84D
PCB (Aroclor 1244)	8082	(mg/kg)	8.1D	23D	1.2D	<0.059UD	3.1DE
PCB (Aroclor 1260)	8082	(mg/kg)	7.0D	20D	0.83D	<0.069UD	1.3D
PCB( Total Aroclors)	8082	(mg/kg)	15D	43D	2.7D	<0.082UD	5.2E

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 9 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-023	AOC2-023	AOC2-024	AOC2-024
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
SAMPLE DEPTH (fbg)							
PCB (Aroclor 1016)	8082	(mg/kg)	<0.80UD	<0.0080U	<0.0080U	<0.80UD	<0.0080U
PCB (Aroclor 1221)	8082	(mg/kg)	<1.0UD	<0.010U	<0.010U	<1.0UD	<0.010U
PCB (Aroclor 1232)	8082	(mg/kg)	<1.2UD	<0.012U	<0.012U	<1.2UD	<0.012U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.82UD	<0.0082U	<0.0082U	<0.82UD	<0.0082U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.58UD	<0.0058U	<0.0058U	<0.58UD	<0.0058U
PCB (Aroclor 1244)	8082	(mg/kg)	9.7D	<0.0059U	<0.0059U	8.0D	<0.0059U
PCB (Aroclor 1260)	8082	(mg/kg)	8.6D	<0.0069U	<0.0069U	7.6D	0.0096fJ
PCB( Total Aroclors)	8082	(mg/kg)	18D	<0.0082U	<0.0082U	16D	0.0096
SAMPLE DEPTH (fbg)							
PCB (Aroclor 1016)	8082	(mg/kg)	<0.0080U	<0.0080U	<0.0080U	<0.0080U	<0.0080U
PCB (Aroclor 1221)	8082	(mg/kg)	<0.010U	<0.010U	<0.010U	<0.010U	<0.010U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.012U	<0.012U	<0.012U	<0.012U	<0.012U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.0082U	<0.0082U	<0.0082U	<0.0082U	<0.0082U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.0058U	<0.0058U	<0.0058U	<0.0058U	<0.0058U
PCB (Aroclor 1244)	8082	(mg/kg)	<0.0059U	<0.0059U	<0.0059U	<0.0059U	<0.0059U
PCB (Aroclor 1260)	8082	(mg/kg)	<0.0069U	<0.0069U	<0.0069U	<0.0069U	0.010J
PCB( Total Aroclors)	8082	(mg/kg)	<0.0082U	<0.0082U	<0.0082U	<0.0082U	0.010

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 10 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-025	AOC2-026	AOC2-026	AOC2-026
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (ft@g)	18.50	6.00	12.00	16.00
PCB (Aroclor 1221)	8082	(mg/kg)		<0.0080U	<0.0080U	<0.0080U	<0.0080U
PCB (Aroclor 1232)	8082	(mg/kg)		<0.010U	<0.010U	<0.010U	<0.010U
PCB (Aroclor 1242)	8082	(mg/kg)		<0.012U	<0.012U	<0.012U	<0.012U
PCB (Aroclor 1248)	8082	(mg/kg)		<0.0082U	<0.0082U	<0.0082U	<0.0082U
PCB (Aroclor 1254)	8082	(mg/kg)		<0.0058U	<0.0058U	<0.0058U	<0.0058U
PCB (Aroclor 1260)	8082	(mg/kg)		<0.0059U	<0.0059U	<0.0059U	<0.0059U
PCB( Total Aroclors)	8082	(mg/kg)		0.010J	<0.0069U	<0.0069U	<0.0069U
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE LOCATION:	AOC2-027	AOC2-027	AOC2-027	AOC2-028
PCB (Aroclor 1221)	8082	(mg/kg)	SAMPLE DATE:	01/11/2007	01/11/2007	01/11/2007	01/11/2007
PCB (Aroclor 1232)	8082	(mg/kg)	SAMPLE DEPTH (ft@g)	6.00	12.00	16.00	18.50
PCB (Aroclor 1242)	8082	(mg/kg)		<0.0080U	<0.0080U	<0.0080U	<0.0080U
PCB (Aroclor 1248)	8082	(mg/kg)		<0.010U	<0.010U	<0.010U	<0.010U
PCB (Aroclor 1254)	8082	(mg/kg)		<0.012U	<0.012U	<0.012U	<0.012U
PCB (Aroclor 1260)	8082	(mg/kg)		<0.0082U	<0.0082U	<0.0082U	<0.0082U
PCB( Total Aroclors)	8082	(mg/kg)		<0.0058U	<0.0058U	<0.0058U	<0.0058U
PCB (Aroclor 1016)	8082	(mg/kg)		<0.0059U	<0.0059U	<0.0059U	<0.0059U
PCB (Aroclor 1221)	8082	(mg/kg)		<0.0069U	<0.0069U	<0.0069U	<0.0069U
PCB (Aroclor 1232)	8082	(mg/kg)		<0.0082U	<0.0082U	<0.0082U	<0.0082U
PCB (Aroclor 1242)	8082	(mg/kg)		<0.011J	<0.011J	<0.011J	<0.011J
PCB (Aroclor 1248)	8082	(mg/kg)		<0.0069U	0.069	0.069	0.069
PCB (Aroclor 1254)	8082	(mg/kg)		<0.0082U	0.011	0.011	0.011
PCB (Aroclor 1260)	8082	(mg/kg)		<0.0082U	<0.0082U	<0.0082U	<0.0082U
PCB( Total Aroclors)	8082	(mg/kg)					1.1D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	AOC2-028	AOC2-028	AOC2-028
			SAMPLE DEPTH (ft@e)				
PCB (Aroclor 1016)	8082	(mg/kg)	<400UD		<0.40UD	<0.40UD	<0.080UD
PCB (Aroclor 1221)	8082	(mg/kg)	<500UD		<0.50UD	<0.50UD	<0.10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<620UD		<0.62UD	<0.62UD	<0.12UD
PCB (Aroclor 1242)	8082	(mg/kg)	<410UD		<0.41UD	<0.41UD	<0.082UD
PCB (Aroclor 1248)	8082	(mg/kg)	<290UD		<0.29UD	<0.29UD	<0.058UD
PCB (Aroclor 1244)	8082	(mg/kg)	5900D		2.2JD	0.33JD	
PCB (Aroclor 1260)	8082	(mg/kg)	5000D		1.6JD	0.36JD	
PCB( Total Aroclors)	8082	(mg/kg)	11000D		3.8D	0.69D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 11

## ANALYTICAL CHEMISTRY REPORT

### MATRIX: SOIL

#### METHODS:

EPA Method 160.3 - Total Residue by Drying Oven  
EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

#### ANALYTICAL CHEMISTRY REPORT

Project No.:006651  
Page 1 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-052 04/27/2007	AOC2-PE-053 04/27/2007	AOC2-PE-054 04/27/2007	AOC2-PE-055 05/07/2007	AOC2-PE-056 05/07/2007
Total Solids		160 (%)	SAMPLE DEPTH (fbg):	18.00	17.00	18.00	19.00	19.00
				---	---	---	91.1	--
<b>EPA Method 160.3 - Total Residue by Drying Oven</b>								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-001 10/11/2005	AOC2-PE-002 10/11/2005	AOC2-PE-003 10/11/2005	AOC2-PE-004 10/11/2005	AOC2-PE-005 10/11/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	7.00	7.00	7.00	8.00	7.00
				81	93.3	92.8	80.4	89.4

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental

Professional Services Group, Inc.

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-PE-006	AOC2-PE-007	AOC2-PE-008	AOC2-PE-009	AOC2-PE-010
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	10/11/2005	10/11/2005	10/11/2005	10/27/2005	10/27/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	7.00	11.00	10.00	3.50	7.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-PE-011	AOC2-PE-012	AOC2-PE-013	AOC2-PE-013	AOC2-PE-013
Total Solids		160.3 (%)	SAMPLE DATE:	10/27/2005	10/27/2005	10/27/2005	11/08/2005	11/08/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	7.00	9.00	9.00	12.00	20.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-PE-014	AOC2-PE-014	AOC2-PE-015	AOC2-PE-016	AOC2-PE-017
Total Solids		160.3 (%)	SAMPLE DATE:	10/27/2005	11/08/2005	10/27/2005	10/27/2005	10/27/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	7.00	8.00	7.00	3.50	3.50
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-PE-018	AOC2-PE-018	AOC2-PE-018	AOC2-PE-018	AOC2-PE-019
Total Solids		160.3 (%)	SAMPLE DATE:	10/27/2005	11/08/2005	11/08/2005	11/08/2005	10/27/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	7.00	8.00	12.00	18.00	12.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	AOC2-PE-020	AOC2-PE-020	AOC2-PE-020	AOC2-PE-021	AOC2-PE-022
Total Solids		160.3 (%)	SAMPLE DATE:	10/27/2005	11/08/2005	11/08/2005	05/25/2006	05/25/2006
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	11.00	12.00	18.00	19.00	15.00

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental

Professional Services Group, Inc.

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-PE-022 01/10/2007	AOC2-PE-023 05/25/2006	AOC2-PE-024 05/25/2006	AOC2-PE-025 05/25/2006	AOC2-PE-026 05/25/2006
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	19.00	8.50	15.00	13.00	13.60
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-PE-027 05/25/2006	AOC2-PE-028 05/25/2006	AOC2-PE-029 05/25/2006	AOC2-PE-030 05/25/2006	AOC2-PE-031 05/25/2006
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	8.00	8.00	8.50	8.50	15.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-PE-032 05/25/2006	AOC2-PE-033 11/30/2006	AOC2-PE-034 11/30/2006	AOC2-PE-035 11/30/2006	AOC2-PE-036 04/24/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	19.00	8.50	9.00	9.00	12.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-PE-037 04/24/2007	AOC2-PE-038 04/24/2007	AOC2-PE-039 04/24/2007	AOC2-PE-040 04/24/2007	AOC2-PE-041 04/24/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	12.00	6.00	6.00	6.00	6.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-PE-042 04/24/2007	AOC2-PE-043 04/24/2007	AOC2-PE-044 04/24/2007	AOC2-PE-045 04/24/2007	AOC2-PE-046 04/24/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	12.00	12.00	12.00	12.00	12.00

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 4 of 11

**EPA Method 160.3 - Total Residue by Drying Oven**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-047 04/24/2007	AOC2-PE-048 04/24/2007	AOC2-PE-049 04/24/2007	AOC2-PE-050 04/24/2007	AOC2-PE-051 04/25/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg)	6.00	6.00	12.00	6.00	22.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-052 04/27/2007	AOC2-PE-053 04/27/2007	AOC2-PE-054 04/27/2007	AOC2-PE-055 05/07/2007	AOC2-PE-056 05/07/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg)	18.00	17.00	18.00	19.00	19.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-057 05/07/2007	AOC2-PE-058 05/07/2007	AOC2-PE-059 05/07/2007	AOC2-PE-060 05/07/2007	AOC2-PE-061 05/07/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg)	19.00	12.00	12.00	12.00	9.00
<b>EPA Method 8082 - Polychlorinated Biphenyls</b>								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-001 10/11/2005	AOC2-PE-002 10/11/2005	AOC2-PE-003 10/11/2005	AOC2-PE-004 10/11/2005	AOC2-PE-005 10/11/2005
PCB (Aroclor 1016)		8082 (mg/kg)	SAMPLE DEPTH (fbg)	7.00	7.00	7.00	8.00	7.00
PCB (Aroclor 1221)		8082 (mg/kg)	<0.25UD	<500UD	<250UD	<5.0UD	>250UD	
PCB (Aroclor 1232)		8082 (mg/kg)	<0.25UD	<500UD	<250UD	<5.0UD	>250UD	
PCB (Aroclor 1242)		8082 (mg/kg)	<0.25UD	<500UD	<250UD	<5.0UD	>250UD	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 5 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-PE-001 10/11/2005	AOC2-PE-002 10/11/2005	AOC2-PE-003 10/11/2005	AOC2-PE-004 10/11/2005	AOC2-PE-005 10/11/2005
			SAMPLE DEPTH (ft@g)					
PCB (Aroclor 1248)	8082	(mg/kg)		7.00 <0.25UD	7.00 <500UD	7.00 <500UD	8.00 <5.0UD	7.00 <250UD
PCB (Aroclor 1244)	8082	(mg/kg)		<0.25UD	<500UD	<250UD	<5.0UD	<250UD
PCB (Aroclor 1260)	8082	(mg/kg)		1.1D	970D	890DE	23DE	760D
PCB( Total Aroclors)	8082	(mg/kg)		1.1D	970D	890E	23E	760D
			SAMPLE LOCATION:	AOC2-PE-006 10/11/2005	AOC2-PE-007 10/11/2005	AOC2-PE-008 10/11/2005	AOC2-PE-009 10/27/2005	AOC2-PE-010 10/27/2005
			SAMPLE DEPTH (ft@g)					
PCB (Aroclor 1016)	8082	(mg/kg)		7.00 <250UD	11.00 <25UD	10.00 <250UD	3.50 <25UD	7.00 <50UD
PCB (Aroclor 1221)	8082	(mg/kg)		<1.0UD	<25UD	<250UD	<0.25UD	<50UD
PCB (Aroclor 1232)	8082	(mg/kg)		<1.0UD	<25UD	<250UD	<0.25UD	<50UD
PCB (Aroclor 1242)	8082	(mg/kg)		<1.0UD	<25UD	<250UD	<0.25UD	<50UD
PCB (Aroclor 1248)	8082	(mg/kg)		<1.0UD	<25UD	<250UD	<0.25UD	<50UD
PCB (Aroclor 1254)	8082	(mg/kg)		2.8D	<25UD	<250UD	<0.25UD	<50UD
PCB (Aroclor 1260)	8082	(mg/kg)		2.6D	110D	490D	0.51D	190D
PCB( Total Aroclors)	8082	(mg/kg)		5.4D	110D	490D	0.51D	190D
			SAMPLE LOCATION:	AOC2-PE-011 10/27/2005	AOC2-PE-012 10/27/2005	AOC2-PE-013 10/27/2005	AOC2-PE-013 11/08/2005	AOC2-PE-013 11/08/2005
			SAMPLE DEPTH (ft@g)					
PCB (Aroclor 1016)	8082	(mg/kg)		<50UD	<500UD	<500UD	<250UD	<1.3UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 6 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-011 10/27/2005	AOC2-PE-012 10/27/2005	AOC2-PE-013 10/27/2005	AOC2-PE-013 11/08/2005	AOC2-PE-013 11/08/2005
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1221)	8082	(mg/kg)		<50UD	<500UD	<500UD	<250UD	<1.3UD
PCB (Aroclor 1222)	8082	(mg/kg)		<50UD	<500UD	<500UD	<250UD	<1.3UD
PCB (Aroclor 1242)	8082	(mg/kg)		<50UD	<500UD	<500UD	<250UD	<1.3UD
PCB (Aroclor 1248)	8082	(mg/kg)		<50UD	<500UD	<500UD	<250UD	<1.3UD
PCB (Aroclor 1254)	8082	(mg/kg)		<50UD	<500UD	<500UD	<250UD	<1.3UD
PCB (Aroclor 1260)	8082	(mg/kg)		130D	1000D	3100DE	930D	<1.3UD
PCB( Total Aroclors)	8082	(mg/kg)		130D	1000D	3100E	930D	<1.3UD
SAMPLE DEPTH (ft@g)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-014 10/27/2005	AOC2-PE-014 11/08/2005	AOC2-PE-015 10/27/2005	AOC2-PE-016 10/27/2005	AOC2-PE-017 10/27/2005
PCB (Aroclor 1016)	8082	(mg/kg)		<500UD	<0.41UD	<25UD	<5.0UD	<0.25UD
PCB (Aroclor 1221)	8082	(mg/kg)		<500UD	<0.41UD	<25UD	<5.0UD	<0.25UD
PCB (Aroclor 1232)	8082	(mg/kg)		<500UD	<0.41UD	<25UD	<5.0UD	<0.25UD
PCB (Aroclor 1242)	8082	(mg/kg)		<500UD	<0.41UD	<25UD	<5.0UD	<0.25UD
PCB (Aroclor 1248)	8082	(mg/kg)		<500UD	1.1D	<25UD	<5.0UD	<0.25UD
PCB (Aroclor 1254)	8082	(mg/kg)		<500UD	<0.41UD	<25UD	<5.0UD	<0.25UD
PCB (Aroclor 1260)	8082	(mg/kg)		2300D	1.9D	56D	18D	0.81D
PCB( Total Aroclors)	8082	(mg/kg)		2300D	3.0D	56D	18D	0.81D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 7 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-018 10/27/2005	AOC2-PE-018 11/08/2005	AOC2-PE-018 11/08/2005	AOC2-PE-019 10/27/2005
SAMPLE DEPTH (ft@g)							
PCB (Aroclor 1016)	8082	(mg/kg)	<500UD	<20UD	<5000UD	<16UD	<2.5UD
PCB (Aroclor 1221)	8082	(mg/kg)	<500UD	<20UD	<5000UD	<16UD	<2.5UD
PCB (Aroclor 1232)	8082	(mg/kg)	<500UD	<20UD	<5000UD	<16UD	<2.5UD
PCB (Aroclor 1242)	8082	(mg/kg)	<500UD	<20UD	<5000UD	<16UD	<2.5UD
PCB (Aroclor 1248)	8082	(mg/kg)	<500UD	<20UD	<5000UD	<16UD	<2.5UD
PCB (Aroclor 1244)	8082	(mg/kg)	<500UD	<20UD	<5000UD	<16UD	<2.5UD
PCB (Aroclor 1260)	8082	(mg/kg)	2200D	68D	1.20E+4D	35D	10D
PCB( Total Aroclors)	8082	(mg/kg)	2200D	68D	12000D	35D	10D
SAMPLE DEPTH (ft@g)							
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-020 10/27/2005	AOC2-PE-020 11/08/2005	AOC2-PE-021 11/08/2005	AOC2-PE-022 05/25/2006
PCB (Aroclor 1016)	8082	(mg/kg)	<250UD	<1000UD	<0.50UD	<100UD	<500UD
PCB (Aroclor 1221)	8082	(mg/kg)	<250UD	<1000UD	<0.50UD	<100UD	<500UD
PCB (Aroclor 1232)	8082	(mg/kg)	<250UD	<1000UD	<0.50UD	<100UD	<500UD
PCB (Aroclor 1242)	8082	(mg/kg)	<250UD	<1000UD	<0.50UD	<100UD	<500UD
PCB (Aroclor 1248)	8082	(mg/kg)	<250UD	<1000UD	<0.50UD	<100UD	<500UD
PCB (Aroclor 1244)	8082	(mg/kg)	<250UD	<1000UD	<0.50UD	<100UD	<500UD
PCB (Aroclor 1260)	8082	(mg/kg)	1100D	2200D	1.6D	35D	790DE
PCB( Total Aroclors)	8082	(mg/kg)	1100D	2200D	1.6D	35D	790E

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 8 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-022 01/10/2007	AOC2-PE-023 05/25/2006	AOC2-PE-024 05/25/2006	AOC2-PE-025 05/25/2006	AOC2-PE-026 05/25/2006
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)		<2.5UD	<2.5UD	<500UD	<500UD	<0.50UD
PCB (Aroclor 1221)	8082	(mg/kg)		<2.5UD	<2.5UD	<500UD	<500UD	<0.50UD
PCB (Aroclor 1232)	8082	(mg/kg)		<2.5UD	<2.5UD	<500UD	<500UD	<0.50UD
PCB (Aroclor 1242)	8082	(mg/kg)		<2.5UD	<2.5UD	<500UD	<500UD	<0.50UD
PCB (Aroclor 1248)	8082	(mg/kg)		<2.5UD	<2.5UD	<500UD	<500UD	<0.50UD
PCB (Aroclor 1244)	8082	(mg/kg)		10D	<2.5UD	<500UD	<500UD	<0.50UD
PCB (Aroclor 1260)	8082	(mg/kg)		9.3D	6.7D	5400DE	2100D	5.8DE
PCB( Total Aroclors)	8082	(mg/kg)		19D	6.7D	5400E	2100D	5.8E
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-027 05/25/2006	AOC2-PE-028 05/25/2006	AOC2-PE-029 05/25/2006	AOC2-PE-030 05/25/2006	AOC2-PE-031 05/25/2006
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)		<10UD	<25UD	<25UD	<5.0UD	<5.0UD
PCB (Aroclor 1221)	8082	(mg/kg)		<10UD	<25UD	<25UD	<5.0UD	<5.0UD
PCB (Aroclor 1232)	8082	(mg/kg)		<10UD	<25UD	<25UD	<5.0UD	<5.0UD
PCB (Aroclor 1242)	8082	(mg/kg)		<10UD	<25UD	<25UD	<5.0UD	<5.0UD
PCB (Aroclor 1248)	8082	(mg/kg)		<10UD	<25UD	<25UD	<5.0UD	<5.0UD
PCB (Aroclor 1244)	8082	(mg/kg)		<10UD	<25UD	<25UD	<5.0UD	<5.0UD
PCB (Aroclor 1260)	8082	(mg/kg)		36D	69D	68D	16D	14D
PCB( Total Aroclors)	8082	(mg/kg)		36D	69D	68D	16D	14D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 9 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-PE-032	AOC2-PE-033	AOC2-PE-034	AOC2-PE-035	AOC2-PE-036
			SAMPLE DATE:	05/25/2006	11/30/2006	11/30/2006	11/30/2006	04/24/2007
SAMPLE DEPTH (fbg)								
PCB (Aroclor 1016)	8082	(mg/kg)	<0.063U	<0.80UD	<0.80UD	<0.80UD	<0.80UD	<0.055UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.063U	<1.0UD	<1.0UD	<1.0UD	<1.0UD	<0.069UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.063U	<1.2UD	<1.2UD	<1.2UD	<1.2UD	<0.085UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.063U	<0.82UD	<0.82UD	<0.82UD	<0.82UD	<0.056UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.063U	<0.58UD	<0.58UD	<0.58UD	<0.58UD	<0.040UD
PCB (Aroclor 1244)	8082	(mg/kg)	<0.063U	3.4JD	10D	10D	10D	<0.040UD
PCB (Aroclor 1260)	8082	(mg/kg)	0.12	3.4JD	14D	14D	14D	0.075ID
PCB( Total Aroclors)	8082	(mg/kg)	0.12	6.8D	24D	24D	24D	0.075D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC2-PE-037	AOC2-PE-038	AOC2-PE-039	AOC2-PE-040	AOC2-PE-041
			SAMPLE DATE:	04/24/2007	04/24/2007	04/24/2007	04/24/2007	04/24/2007
SAMPLE DEPTH (fbg)								
PCB (Aroclor 1016)	8082	(mg/kg)	<0.042UD	<0.22UD	<0.26UD	<1.0UD	<1.0UD	<0.20UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.053UD	<0.27UD	<0.32UD	<1.3UD	<1.3UD	<0.25UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.066UD	<0.33UD	<0.39UD	<1.6UD	<1.6UD	<0.31UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.044UD	<0.22UD	<0.26UD	<1.1UD	<1.1UD	<0.21UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.031UD	2.6D	<0.18UD	<0.75UD	<0.75UD	2.3D
PCB (Aroclor 1244)	8082	(mg/kg)	0.41D	4.0D	3.7D	12D	12D	5.4D
PCB (Aroclor 1260)	8082	(mg/kg)	0.36D	1.9D	3.6D	24D	24D	6.1D
PCB( Total Aroclors)	8082	(mg/kg)	0.77D	8.5D	7.3D	36D	36D	14D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 10 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-042 04/24/2007	AOC2-PE-043 04/24/2007	AOC2-PE-044 04/24/2007	AOC2-PE-045 04/24/2007	AOC2-PE-046 04/24/2007
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<0.22UD	<0.022U	<0.023U	<0.023U	<0.024U	<0.024U
PCB (Aroclor 1221)	8082	(mg/kg)	<0.27UD	<0.028U	<0.029U	<0.029U	<0.030U	<0.030U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.34UD	<0.034U	<0.035U	<0.035U	<0.036U	<0.037U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.22UD	<0.023U	<0.024U	<0.024U	<0.024U	<0.024U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.16UD	<0.016U	<0.017U	<0.017U	<0.017U	<0.017U
PCB (Aroclor 1244)	8082	(mg/kg)	2.9D	<0.016U	<0.017U	<0.017U	0.21	<0.017U
PCB (Aroclor 1260)	8082	(mg/kg)	3.3D	0.10J	0.085J	0.085J	0.45	<0.020U
PCB( Total Aroclors)	8082	(mg/kg)	6.2D	0.10	0.085	0.085	0.66	<0.037U
SAMPLE DEPTH (ft@g)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-047 04/24/2007	AOC2-PE-048 04/24/2007	AOC2-PE-049 04/24/2007	AOC2-PE-050 04/24/2007	AOC2-PE-051 04/24/2007
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<2.4UD	<22UD	<0.040UD	<4.0UD	<4.0UD	<1500UD
PCB (Aroclor 1221)	8082	(mg/kg)	<3.0UD	<27UD	<0.050UD	<5.0UD	<5.0UD	<1500UD
PCB (Aroclor 1232)	8082	(mg/kg)	<3.7UD	<34UD	<0.061UD	<6.1UD	<6.1UD	<1500UD
PCB (Aroclor 1242)	8082	(mg/kg)	<2.5UD	<22UD	<0.041UD	<4.1UD	<4.1UD	<1500UD
PCB (Aroclor 1248)	8082	(mg/kg)	<1.7UD	<16UD	<0.029UD	<2.9UD	<2.9UD	<1500UD
PCB (Aroclor 1244)	8082	(mg/kg)	30D	120JD	0.34D	36D	36D	<1500UD
PCB (Aroclor 1260)	8082	(mg/kg)	80DE	330D	0.55D	88D	88D	3200DB
PCB( Total Aroclors)	8082	(mg/kg)	110E	450D	0.89D	120D	120D	3200D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 11 of 11

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-052 04/27/2007	AOC2-PE-053 04/27/2007	AOC2-PE-054 04/27/2007	AOC2-PE-055 05/07/2007	AOC2-PE-056 05/07/2007
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)		<0.043UD	<44UD	<0.047UD	<0.042U	<0.050U
PCB (Aroclor 1221)	8082	(mg/kg)		<0.054UD	<54UD	<0.058UD	<0.042U	<0.050U
PCB (Aroclor 1232)	8082	(mg/kg)		<0.067UD	<67UD	<0.072UD	<0.042U	<0.050U
PCB (Aroclor 1242)	8082	(mg/kg)		<0.045UD	<45UD	<0.048UD	<0.042U	<0.050U
PCB (Aroclor 1248)	8082	(mg/kg)		<0.031UD	<31UD	<0.034UD	<0.042U	<0.050U
PCB (Aroclor 1244)	8082	(mg/kg)		<0.032UD	430D	0.35D	<0.042U	<0.050U
PCB (Aroclor 1260)	8082	(mg/kg)		0.23JD	620D	0.76D	<0.042U	0.13
PCB( Total Aroclors)	8082	(mg/kg)		0.23D	1000D	1.1D	<0.042U	0.13
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC2-PE-057 05/07/2007	AOC2-PE-058 05/07/2007	AOC2-PE-059 05/07/2007	AOC2-PE-060 05/07/2007	AOC2-PE-061 05/07/2007
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)		<0.050U	<50UD	<0.040UD	<0.039U	<5.0UD
PCB (Aroclor 1221)	8082	(mg/kg)		<0.050U	<50UD	<0.050UD	<0.039U	<5.0UD
PCB (Aroclor 1232)	8082	(mg/kg)		<0.050U	<50UD	<0.062UD	<0.039U	<5.0UD
PCB (Aroclor 1242)	8082	(mg/kg)		<0.050U	<50UD	<0.041UD	<0.039U	<5.0UD
PCB (Aroclor 1248)	8082	(mg/kg)		<0.050U	<50UD	<0.029UD	<0.039U	<5.0UD
PCB (Aroclor 1244)	8082	(mg/kg)		<0.050U	<50UD	<0.029UD	<0.039U	<5.0UD
PCB (Aroclor 1260)	8082	(mg/kg)		<0.050U	110D	0.79D	<0.039U	9.5D
PCB( Total Aroclors)	8082	(mg/kg)		<0.050U	110D	0.79D	<0.039U	9.5D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 4

## ANALYTICAL CHEMISTRY REPORT

**FORMER SCHMIDT'S BREWERY**  
**NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA**

### MATRIX: SOIL

#### METHODS:

EPA Method 160.3 - Total Residue by Drying Oven

EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC3-001	AOC3-002	AOC3-003	AOC3-004	AOC3-005
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/10/2005	08/10/2005	08/10/2005	08/10/2005	08/10/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
			SAMPLE LOCATION:	AOC3-074	AOC3-075	AOC3-077	AOC3-PE-001	AOC3-PE-002
			SAMPLE DATE:	08/10/2005	08/10/2005	08/10/2005	10/03/2005	10/03/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	14.00	14.00
			SAMPLE LOCATION:	AOC3-PE-003	AOC3-PE-004	AOC3-PE-005	AOC3-PE-006	AOC3-PE-007
			SAMPLE DATE:	10/03/2005	10/03/2005	10/03/2005	10/03/2005	10/03/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	14.00	14.00	14.00	14.00	14.00
				90.9	96.2	95.9	96.7	96.4

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT  
Project No.:006651  
Page 2 of 4

EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC3-PE-008 10/03/2005	AOC3-PE-009 10/03/2005	AOC3-PE-010 10/03/2005	AOC3-PE-011 10/03/2005	AOC3-PE-012 10/03/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg)	14.00	14.00	14.00	14.00	14.00

EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC3-001 08/10/2005	AOC3-002 08/10/2005	AOC3-003 08/10/2005	AOC3-004 08/10/2005	AOC3-005 08/10/2005
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (fbg)	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)	<1000UD	<25UD	<50UD	<32UD	<18UD	<18UD
PCB (Aroclor 1232)	8082	(mg/kg)	<1000UD	<25UD	<50UD	<32UD	<18UD	<18UD
PCB (Aroclor 1242)	8082	(mg/kg)	<1000UD	<25UD	<50UD	<32UD	<18UD	<18UD
PCB (Aroclor 1248)	8082	(mg/kg)	<1000UD	<25UD	<50UD	<32UD	<18UD	<18UD
PCB (Aroclor 1254)	8082	(mg/kg)	<1000UD	<25UD	<50UD	<32UD	<18UD	<18UD
PCB (Aroclor 1260)	8082	(mg/kg)	5100D	68D	100D	91D	65D	65D
PCB( Total Aroclors)	8082	(mg/kg)	5100D	68D	100D	91D	65D	65D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC3-074 08/10/2005	AOC3-075 08/10/2005	AOC3-077 08/10/2005	AOC3-PE-001 10/03/2005	AOC3-PE-002 10/03/2005
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (fbg)	0.00	0.00	0.00	14.00	14.00
PCB (Aroclor 1221)	8082	(mg/kg)	<10UD	<10UD	<21UD	<0.50UD	<0.50UD	<0.50UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 3 of 4

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC3-074	AOC3-075	AOC3-077	AOC3-PE-001	AOC3-PE-002
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/10/2005	08/10/2005	08/10/2005	10/03/2005	10/03/2005
PCB (Aroclor 1222)	8082	(mg/kg)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	14.00	14.00
PCB (Aroclor 1242)	8082	(mg/kg)		<52UD	<10UD	<21UD	<0.50UD	<0.50UD
PCB (Aroclor 1248)	8082	(mg/kg)		<52UD	<10UD	<21UD	<0.50UD	<0.50UD
PCB (Aroclor 1254)	8082	(mg/kg)		<52UD	<10UD	<21UD	<0.50UD	<0.50UD
PCB (Aroclor 1260)	8082	(mg/kg)		150D	38D	84D	<0.50UD	0.81D
PCB( Total Aroclors)	8082	(mg/kg)		150D	38D	84D	<0.50UD	0.81D
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE LOCATION:	AOC3-PE-003	AOC3-PE-004	AOC3-PE-005	AOC3-PE-006	AOC3-PE-007
PCB (Aroclor 1221)	8082	(mg/kg)	SAMPLE DATE:	10/03/2005	10/03/2005	10/03/2005	10/03/2005	10/03/2005
PCB (Aroclor 1232)	8082	(mg/kg)	SAMPLE DEPTH (fbg):	14.00	14.00	14.00	14.00	14.00
PCB (Aroclor 1242)	8082	(mg/kg)		<2.5UD	<0.050U	<0.050U	<0.50UD	<2.5UD
PCB (Aroclor 1248)	8082	(mg/kg)		<2.5UD	<0.050U	<0.050U	<0.50UD	<2.5UD
PCB (Aroclor 1254)	8082	(mg/kg)		<2.5UD	<0.050U	<0.050U	<0.50UD	<2.5UD
PCB (Aroclor 1260)	8082	(mg/kg)		<2.5UD	<0.050U	<0.050U	<0.50UD	<2.5UD
PCB( Total Aroclors)	8082	(mg/kg)		11DE	<0.050U	<0.050U	0.53D	7.7D
				11E	<0.050U	<0.050U	0.53D	7.7D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC3-PE-008 10/03/2005	AOC3-PE-009 10/03/2005	AOC3-PE-010 10/03/2005	AOC3-PE-011 10/03/2005	AOC3-PE-012 10/03/2005
			SAMPLE DEPTH (ft@g)					
PCB (Aroclor 1016)	8082	(mg/kg)	<0.50UD	<2.5UD	<2.5UD	<1.9UD	<1.9UD	<2.5UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.50UD	<2.5UD	<2.5UD	<1.9UD	<1.9UD	<2.5UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.50UD	<2.5UD	<2.5UD	<1.9UD	<1.9UD	<2.5UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.50UD	<2.5UD	<2.5UD	<1.9UD	<1.9UD	<2.5UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.50UD	<2.5UD	<2.5UD	<1.9UD	<1.9UD	<2.5UD
PCB (Aroclor 1244)	8082	(mg/kg)	<0.50UD	<2.5UD	<2.5UD	<1.9UD	<1.9UD	<2.5UD
PCB (Aroclor 1260)	8082	(mg/kg)	<0.50UD	<2.5D	<2.5UD	2.9D	2.9D	3.3D
PCB( Total Aroclors)	8082	(mg/kg)	<0.50UD	<2.5UD	<2.5UD	2.9D	2.9D	3.3D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 5

## ANALYTICAL CHEMISTRY REPORT

**MATRIX: SOIL**

### METHODS:

EPA Method 160.3 - Total Residue by Drying Oven  
EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC4A-001	VA-001	VA-002	VA-003	VA-004
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	10/05/2005	01/04/2005	01/04/2005	01/04/2005	01/04/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	17.00	7.00	7.00	6.00	5.50
				82.8	94	95.7	93.2	93.9
Total Solids		160.3 (%)	SAMPLE LOCATION:	VA-005	VA-006	VA-PE-001	VA-PE-001A	VA-PE-001B
			SAMPLE DATE:	01/04/2005	01/04/2005	04/25/2005	08/18/2005	08/18/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	6.00	7.00	10.00	11.50	11.50
				94.6	94D	88.5	94.1	80
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	VA-PE-001C	VA-PE-002	VA-PE-003	VA-PE-004	VA-PE-005
			SAMPLE DATE:	08/18/2005	04/25/2005	04/25/2005	04/25/2005	04/25/2005
			SAMPLE DEPTH (fbg):	12.00	12.00	12.00	12.00	12.00

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental

Professional Services Group, Inc.

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	V A-PE-001C	V A-PE-002	V A-PE-003	V A-PE-004	V A-PE-005
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/18/2005	04/25/2005	04/25/2005	04/25/2005	04/25/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	12.00	12.00	12.00	12.00	12.00
			SAMPLE LOCATION:	V A-PE-006	V A-PE-007	V A-PE-008	V A-PE-009	V A-PE-010
			SAMPLE DATE:	04/25/2005	04/25/2005	04/25/2005	04/25/2005	04/25/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	12.00	14.00	14.00	14.00	14.00
			SAMPLE LOCATION:	V A-PE-010A	V A-PE-010B	V A-PE-011	V A-PE-012	V A-PE-012
			SAMPLE DATE:	08/18/2005	08/18/2005	04/25/2005	04/25/2005	04/25/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	11.50	11.50	14.00	14.00	14.00
			SAMPLE LOCATION:	V A-PE-011	V A-PE-011	V A-PE-011	V A-PE-011	V A-PE-011
			SAMPLE DATE:	08/18/2005	08/18/2005	04/25/2005	04/25/2005	04/25/2005
Benzene	5035/8260B	(mg/kg)	SAMPLE DEPTH (fbg):	<0.050UD	7.00	7.00	6.00	5.50
			SAMPLE LOCATION:	AOC4A-001	V A-001	V A-002	V A-003	V A-004
			SAMPLE DATE:	10/05/2005	01/04/2005	01/04/2005	01/04/2005	01/04/2005

## EPA Method 8082 - Polychlorinated Biphenyls

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 3 of 5

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	AOC4A-001 10/05/2005	VA-001 01/04/2005	VA-002 01/04/2005	VA-003 01/04/2005	VA-004 01/04/2005
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)		<0.11U	<250UD	<500UD	<1.0UD	<0.50UD
PCB (Aroclor 1221)	8082	(mg/kg)		<0.11U	<250UD	<500UD	<1.0UD	<0.50UD
PCB (Aroclor 1242)	8082	(mg/kg)		<0.11U	<250UD	<500UD	<1.0UD	<0.50UD
PCB (Aroclor 1248)	8082	(mg/kg)		<0.11U	740D	1800D	3.8D	1.1D
PCB (Aroclor 1254)	8082	(mg/kg)		<0.11U	<250UD	<500UD	<1.0UD	<0.50UD
PCB (Aroclor 1260)	8082	(mg/kg)		0.16	1100D	1600D	1.5D	1.2D
PCB( Total Aroclors)	8082	(mg/kg)		0.16	1800D	3400D	5.3D	2.3D
PCB (Aroclor 1222)	8082	(mg/kg)		<0.11U	<250UD	<500UD	<1.0UD	<0.50UD
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	VA-005 01/04/2005	VA-006 01/04/2005	VA-PE-001 04/25/2005	VA-PE-001A 08/18/2005	VA-PE-001B 08/18/2005
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)		<1.0UD	<10UD	<10UD	36D	<0.050U
PCB (Aroclor 1221)	8082	(mg/kg)		<1.0UD	<10UD	<10UD	<19UD	<0.050U
PCB (Aroclor 1242)	8082	(mg/kg)		<1.0UD	<10UD	<19UD	<19UD	<0.050U
PCB (Aroclor 1248)	8082	(mg/kg)		1.4D	27D	<19UD	<0.050U	<6.2UD
PCB (Aroclor 1254)	8082	(mg/kg)		<1.0UD	<10UD	<19UD	<0.050U	<6.2UD
PCB (Aroclor 1260)	8082	(mg/kg)		1.1D	28D	71D	<0.050U	<6.2UD
PCB( Total Aroclors)	8082	(mg/kg)		2.5D	55D	110D	<0.050U	20D
PCB (Aroclor 1222)	8082	(mg/kg)		<1.0UD	<10UD	<19UD	<0.050U	<6.2UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 4 of 5

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: VA-PE-001C 08/18/2005	SAMPLE DATE: 04/23/2005	VA-PE-002 04/25/2005	VA-PE-003 04/25/2005	VA-PE-004 04/25/2005	VA-PE-005 04/25/2005
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<1.9UD	<0.10UD	<0.10UD	<0.10UD	<0.05UD	<0.05UD
PCB (Aroclor 1221)	8082	(mg/kg)	<1.9UD	<0.10UD	<0.10UD	<0.10UD	<0.05UD	<0.05UD
PCB (Aroclor 1242)	8082	(mg/kg)	<1.9UD	<0.10UD	<0.10UD	<0.10UD	<0.05UD	<0.05UD
PCB (Aroclor 1248)	8082	(mg/kg)	<1.9UD	<0.10UD	<0.10UD	<0.10UD	<0.05UD	<0.05UD
PCB (Aroclor 1254)	8082	(mg/kg)	<1.9UD	<0.10UD	<0.10UD	<0.10UD	<0.05UD	<0.05UD
PCB (Aroclor 1260)	8082	(mg/kg)	3.8D	0.28D	0.36D	0.36D	0.092	<0.05UD
PCB( Total Aroclors)	8082	(mg/kg)	3.8D	0.28D	0.36D	0.36D	0.092	<0.05UD
PCB (Aroclor 1222)	8082	(mg/kg)	<1.9UD	<0.10UD	<0.10UD	<0.10UD	<0.05UD	<0.05UD
SAMPLE DEPTH (ft@g)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: VA-PE-006 04/23/2005	SAMPLE DATE: 04/23/2005	VA-PE-007 04/23/2005	VA-PE-008 04/25/2005	VA-PE-009 04/25/2005	VA-PE-010 04/25/2005
PCB (Aroclor 1016)	8082	(mg/kg)	<0.050U	<0.25UD	1.5D	<0.050U	14.00	14.00
PCB (Aroclor 1221)	8082	(mg/kg)	<0.050U	<0.25UD	<1.0UD	<0.050U	32D	<25UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.050U	<0.25UD	<1.0UD	<0.050U	<25UD	<25UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.050U	<0.25UD	<1.0UD	<0.050U	<25UD	<25UD
PCB (Aroclor 1254)	8082	(mg/kg)	<0.050U	<0.25UD	<1.0UD	<0.050U	<25UD	<25UD
PCB (Aroclor 1260)	8082	(mg/kg)	<0.050U	0.55D	2.8D	0.094	85D	
PCB( Total Aroclors)	8082	(mg/kg)	<0.050U	0.55D	4.3D	0.094	120D	
PCB (Aroclor 1222)	8082	(mg/kg)	<0.050U	<0.25UD	<1.0UD	<0.050U	<25UD	<25UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 5 of 5

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	VA-PE-010A 08/18/2005	VA-PE-010B 08/18/2005	VA-PE-011 04/25/2005	VA-PE-012 04/25/2005
			SAMPLE DEPTH (ft@e)				
PCB (Aroclor 1016)	8082	(mg/kg)		11.50	11.50	14.00	14.00
PCB (Aroclor 1221)	8082	(mg/kg)	<500UD	<0.050U	<0.25UD	<0.25UD	<0.25UD
PCB (Aroclor 1242)	8082	(mg/kg)	<500UD	<0.050U	<0.25UD	<0.25UD	<0.25UD
PCB (Aroclor 1248)	8082	(mg/kg)	<500UD	<0.050U	<0.25UD	<0.25UD	<0.25UD
PCB (Aroclor 1254)	8082	(mg/kg)	1700DE	<0.050U	<0.25UD	<0.25UD	<0.25UD
PCB (Aroclor 1260)	8082	(mg/kg)	1100D	<0.050U	0.87D	0.45D	0.45D
PCB( Total Aroclors)	8082	(mg/kg)	3400E	<0.050U	0.87D	0.45D	0.45D
PCB (Aroclor 1222)	8082	(mg/kg)	<500UD	<0.050U	<0.25UD	<0.25UD	<0.25UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental  
Professional Services Group, Inc.

Page 1 of 3

## ANALYTICAL CHEMISTRY REPORT

MATRIX: SOIL

### METHODS:

- EPA Method 160.3 - Total Residue by Drying Oven
- EPA Method 5035 7.5 - Total Residue by Drying Oven
- EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC4B-006	AOC4B-PE-001	AOC4B-PE-002
			SAMPLE DATE:	09/01/2005	10/04/2005	10/04/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg)	2.00	4.00	4.00
				---	89.3	87.4

#### EPA Method 5035 7.5 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC4B-001	AOC4B-002	AOC4B-003	AOC4B-004	AOC4B-005
			SAMPLE DATE:	09/01/2005	09/01/2005	09/01/2005	09/01/2005	09/01/2005
Total Solids		5035 7.5 (%)	SAMPLE DEPTH (fbg)	3.50	2.00	3.00	3.00	2.00
				88	90.1	92.9	93.1	92.5

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental

Professional Services Group, Inc.

ANALYTICAL CHEMISTRY REPORT

## EPA Method 5035 7.5 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC4B-006	AOC4B-PE-001	AOC4B-PE-002
			SAMPLE DATE:	09/01/2005	10/04/2005	10/04/2005
Total Solids		5035 7.5 (%)	SAMPLE DEPTH (fbg)	2.00	4.00	4.00
				92.8	- - -	- - -

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC4B-001	AOC4B-002	AOC4B-003	AOC4B-004	AOC4B-005
			SAMPLE DATE:	09/01/2005	09/01/2005	09/01/2005	09/01/2005	09/01/2005
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (fbg)	3.50	2.00	3.00	3.00	2.00
				<0.21UD	<50UD	<0.10UD	<0.50UD	<25UD
PCB (Aroclor 1221)	8082	(mg/kg)		<0.21UD	<50UD	<0.10UD	<0.50UD	<25UD
PCB (Aroclor 1232)	8082	(mg/kg)		<0.21UD	<50UD	<0.10UD	<0.50UD	<25UD
PCB (Aroclor 1242)	8082	(mg/kg)		<0.21UD	<50UD	<0.10UD	<0.50UD	<25UD
PCB (Aroclor 1248)	8082	(mg/kg)		<0.21UD	<50UD	<0.10UD	<0.50UD	<25UD
PCB (Aroclor 1254)	8082	(mg/kg)		<0.21UD	<50UD	<0.10UD	<0.50UD	<25UD
PCB (Aroclor 1260)	8082	(mg/kg)		0.64D	120D	0.41D	1.8D	63D
PCB (Total Aroclors)	8082	(mg/kg)		0.64D	120D	0.41D	1.8D	63D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	AOC4B-006	AOC4B-PE-001	AOC4B-PE-002		
			SAMPLE DATE:	09/01/2005	10/04/2005	10/04/2005		
			SAMPLE DEPTH (fbg)	2.00	4.00	4.00		
PCB (Aroclor 1016)	8082	(mg/kg)		<0.25UD	<2.5UD	<2.5UD		
PCB (Aroclor 1221)	8082	(mg/kg)		<0.25UD	<2.5UD	<2.5UD		

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	AOC4B-PE-001	AOC4B-PE-002
			SAMPLE DEPTH (ft@e)			
PCB (Aroclor 1232)	8082	(mg/kg)	<0.25UD	<0.25UD	<2.5UD	<2.5UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.25UD	<0.25UD	<2.5UD	<2.5UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.25UD	<0.25UD	<2.5UD	<2.5UD
PCB (Aroclor 1254)	8082	(mg/kg)	0.88D	0.88D	<2.5UD	<2.5UD
PCB (Aroclor 1260)	8082	(mg/kg)	0.90D	0.90D	6.2D	7.8D
PCB (Total Aroclors)	8082	(mg/kg)	1.8D	1.8D	6.2D	7.8D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 6

## ANALYTICAL CHEMISTRY REPORT

**FORMER SCHMIDT'S BREWERY**  
**NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA**

### MATRIX: SOIL

#### METHODS:

EPA Method 160.3 - Total Residue by Drying Oven  
EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-036A 09/23/2005	B-036B 09/23/2005	B-036C 09/23/2005	B-036D 09/23/2005	B-036E 09/23/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.50	0.50	0.50	0.50	0.50
			SAMPLE LOCATION: SAMPLE DATE:	91.4	92.2	91	93.5	91.2
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-036F 09/23/2005	B-036G 09/23/2005	B-036H 09/23/2005	B-036I 09/23/2005	B-039A 09/23/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.50	0.50	0.50	2.00	0.50
			SAMPLE LOCATION: SAMPLE DATE:	92.9	92	88.8	92	92.8
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-039B 09/23/2005	B-039C 09/23/2005	B-039D 09/23/2005	B-039E 09/23/2005	B-039F 09/23/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.50	0.50	0.50	0.50	0.50
				91.5	90.3	91	89.2	90.6

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-041A	B-041B	B-041C	B-041D	B-041E
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	09/23/2005	09/23/2005	0.50	0.50	0.50	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-041F	B-041G	B-041H	B-041I	B-042A
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	09/23/2005	09/23/2005	0.50	0.50	0.50	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-042B	B-042C	B-042D	B-042E	B-042F
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	09/23/2005	09/23/2005	0.50	0.50	0.50	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-042G	B-042H	B-042I	B-042J	B-042K
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	09/23/2005	09/23/2005	0.50	0.50	0.50	0.50

## EPA Method 8082 - Polychlorinated Biphenyls

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 3 of 6

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-036A	B-036B	B-036C	B-036D	B-036E
SAMPLE DEPTH (ft@g)									
PCB (Aroclor 1016)	8082	(mg/kg)		09/23/2005	<2.0UD	<2.5UD	<5.0UD	<1.0UD	<1.0UD
PCB (Aroclor 1221)	8082	(mg/kg)			<2.0UD	<2.5UD	<5.0UD	<1.0UD	<1.0UD
PCB (Aroclor 1232)	8082	(mg/kg)			<2.0UD	<2.5UD	<5.0UD	<1.0UD	<1.0UD
PCB (Aroclor 1242)	8082	(mg/kg)			<2.0UD	<2.5UD	<5.0UD	<1.0UD	<1.0UD
PCB (Aroclor 1248)	8082	(mg/kg)			<2.0UD	<2.5UD	<5.0UD	<1.0UD	<1.0UD
PCB (Aroclor 1244)	8082	(mg/kg)			<2.0UD	<2.5UD	<5.0UD	<1.0UD	<1.0UD
PCB (Aroclor 1260)	8082	(mg/kg)			6.5D	11D	7.5D	3.8D	3.8D
PCB( Total Aroclors)	8082	(mg/kg)			6.5D	11D	7.5D	3.8D	3.8D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-036F	B-036G	B-036H	B-036I	B-039A
SAMPLE DEPTH (ft@g)									
PCB (Aroclor 1016)	8082	(mg/kg)		09/23/2005	<5.0UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1221)	8082	(mg/kg)			<5.0UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1232)	8082	(mg/kg)			<5.0UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1242)	8082	(mg/kg)			<5.0UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1248)	8082	(mg/kg)			<5.0UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1244)	8082	(mg/kg)			<5.0UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1260)	8082	(mg/kg)			9.6D	5.7D	5.5D	5.7D	5.7D
PCB( Total Aroclors)	8082	(mg/kg)			9.6D	5.7D	5.5D	5.7D	5.7D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 4 of 6

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-039B	B-039C	B-039D	B-039E	B-039F
SAMPLE DEPTH (ft@g)									
PCB (Aroclor 1016)	8082	(mg/kg)	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<2.5UD	<2.5UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<2.5UD	<2.5UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<2.5UD	<2.5UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<2.5UD	<2.5UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<2.5UD	<2.5UD
PCB (Aroclor 1244)	8082	(mg/kg)	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<2.5UD	<2.5UD
PCB (Aroclor 1260)	8082	(mg/kg)	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<2.5UD	<2.5UD
PCB( Total Aroclors)	8082	(mg/kg)	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<0.50UD	<2.5UD	<2.5UD
SAMPLE DEPTH (ft@g)									
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-041A	B-041B	B-041C	B-041D	B-041E
PCB (Aroclor 1016)	8082	(mg/kg)	0.50	0.50	0.50	0.50	0.50	0.50	0.50
PCB (Aroclor 1221)	8082	(mg/kg)	<2.5UD	<2.5UD	<2.5UD	<12UD	<12UD	<2.5UD	<40
PCB (Aroclor 1232)	8082	(mg/kg)	<2.5UD	<2.5UD	<2.5UD	<12UD	<12UD	<2.5UD	<50
PCB (Aroclor 1242)	8082	(mg/kg)	<2.5UD	<2.5UD	<2.5UD	<12UD	<12UD	<2.5UD	<62
PCB (Aroclor 1248)	8082	(mg/kg)	<2.5UD	<2.5UD	<2.5UD	<12UD	<12UD	<2.5UD	<41
PCB (Aroclor 1244)	8082	(mg/kg)	<2.5UD	<2.5UD	<2.5UD	<12UD	<12UD	<2.5UD	<29
PCB (Aroclor 1260)	8082	(mg/kg)	5.4D	3.8D	4.7D	5.3D	5.3D	9.6	9.6
PCB( Total Aroclors)	8082	(mg/kg)	5.4D	3.8D	4.7D	15D	15D	9.6	9.6

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-041F 09/23/2005	B-041G 09/23/2005	B-041H 09/23/2005	B-041I 09/23/2005	B-042A 09/23/2005
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<2.5UD	<1.0UD	<2.5UD	<2.5UD	<2.5UD	<12UD
PCB (Aroclor 1221)	8082	(mg/kg)	<2.5UD	<1.0UD	<2.5UD	<2.5UD	<2.5UD	<12UD
PCB (Aroclor 1232)	8082	(mg/kg)	<2.5UD	<1.0UD	<2.5UD	<2.5UD	<2.5UD	<12UD
PCB (Aroclor 1242)	8082	(mg/kg)	<2.5UD	<1.0UD	<2.5UD	<2.5UD	<2.5UD	<12UD
PCB (Aroclor 1248)	8082	(mg/kg)	<2.5UD	<1.0UD	<2.5UD	<2.5UD	<2.5UD	<12UD
PCB (Aroclor 1244)	8082	(mg/kg)	<2.5UD	<1.0UD	<2.5UD	<2.5UD	<2.5UD	<12UD
PCB (Aroclor 1260)	8082	(mg/kg)	15DE	5.7DE	10DE	12DE	12DE	16D
PCB( Total Aroclors)	8082	(mg/kg)	15E	5.7E	10E	12E	12E	16D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-042B 09/23/2005	B-042C 09/23/2005	B-042D 09/23/2005	B-042E 09/23/2005	B-042F 09/23/2005
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<12UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1221)	8082	(mg/kg)	<12UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1232)	8082	(mg/kg)	<12UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1242)	8082	(mg/kg)	<12UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1248)	8082	(mg/kg)	<12UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1244)	8082	(mg/kg)	<12UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1260)	8082	(mg/kg)	29D	9.6D	<2.5UD	3.8D	3.8D	2.5D
PCB( Total Aroclors)	8082	(mg/kg)	29D	9.6D	<2.5UD	3.8D	3.8D	2.5D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 6 of 6

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-042G	B-042H	B-042I
			SAMPLE DEPTH (ft@e)				
PCB (Aroclor 1016)	8082	(mg/kg)	>2.5UD	09/23/2005	>2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1221)	8082	(mg/kg)	>2.5UD		>2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1232)	8082	(mg/kg)	>2.5UD		>2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1242)	8082	(mg/kg)	>2.5UD		>2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1248)	8082	(mg/kg)	>2.5UD		>2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1244)	8082	(mg/kg)	>2.5UD		>2.5UD	<2.5UD	<2.5UD
PCB (Aroclor 1260)	8082	(mg/kg)	6.2D		6.2D	<2.5UD	8.7D
PCB( Total Aroclors)	8082	(mg/kg)	6.2D		6.2D	<2.5UD	8.7D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

## ANALYTICAL CHEMISTRY REPORT

### MATRIX: SOIL

#### METHODS:

- EPA Method 5035 7.5 - Total Residue by Drying Oven
- EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry
- EPA Method 7196A - Chromium, Hexavalent: AA, Colorimetric
- EPA Method 7471A - Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)
- EPA Method 7841 - Thallium: AA, Furnace Technique
- EPA Method 8082 - Polychlorinated Biphenyls (PCBs)
- EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
- EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 5035 7.5 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-001	B-002	B-002G	B-003
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):		0.50	12.00	0.50	19.00
				92	81.8	91.6	91.7	89.9
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-003	B-003G	B-004	B-005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):		12.00	18.00	0.50	12.00
				83.3	89.4	87.8	80.2	93.8

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 5035 7.5 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-005G	SAMPLE DATE:	08/18/2005	B-006	09/01/2005	B-006G	08/18/2005	B-007
Total Solids		5035 7.5 (%)	SAMPLE DEPTH (fbg):	18.00		0.50	8.00		18.00		0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-008	SAMPLE DATE:	09/01/2005	B-008	09/01/2005	B-009	08/18/2005	B-010
Total Solids		5035 7.5 (%)	SAMPLE DEPTH (fbg):	0.50		12.00	0.50		11.50		0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-010	SAMPLE DATE:	09/01/2005	B-010G	08/18/2005	B-011	09/01/2005	B-011G
Total Solids		5035 7.5 (%)	SAMPLE DEPTH (fbg):	90.2		85.8	89.4		90.3		90.3
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-012	SAMPLE DATE:	09/01/2005	B-012	09/01/2005	B-012G	09/02/2005	B-013
Total Solids		5035 7.5 (%)	SAMPLE DEPTH (fbg):	92.5		87.1	85.6		88.7		13.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-014	SAMPLE DATE:	09/02/2005	B-015	09/02/2005	B-016	08/18/2005	B-013G
Total Solids		5035 7.5 (%)	SAMPLE DEPTH (fbg):	94.3		91.4	88.3		82.7		93.6

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 5035 7.5 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	REPORT ID:	REPORT DATE:
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-018 09/02/2005	B-020 09/02/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	92.6	09/01/2005	09/02/2005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-019 09/02/2005	B-021 09/02/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	90.6	09/01/2005	09/02/2005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-023 09/01/2005	B-024 09/01/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	92.7	09/02/2005	09/02/2005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-026 09/02/2005	B-022 09/02/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	94.8	09/02/2005	09/02/2005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-027 09/02/2005	B-029 09/02/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	90.9	09/02/2005	09/02/2005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-030 09/02/2005	B-031 09/02/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	90.2	09/02/2005	09/02/2005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-033 09/02/2005	B-034 09/02/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	90.9	09/02/2005	09/02/2005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-035 09/02/2005	B-036 09/02/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	92.2	09/02/2005	09/02/2005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-039 09/02/2005	B-040 09/02/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	94.8	09/02/2005	09/02/2005
Total Solids	5035 7.5	(%)	SAMPLE DEPTH (fbg):	0.50	B-041 09/02/2005	B-041 09/02/2005

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 4 of 103

**EPA Method 5035 7.5 - Total Residue by Drying Oven**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-042 09/02/2005	B-043 09/02/2005	B-044 09/02/2005	B-045 09/02/2005	B-046 09/02/2005
Total Solids	5035	7.5 (%)	SAMPLE DEPTH (fbg):	0.50	0.50	0.50	0.50	0.50
Total Solids	5035	7.5 (%)	SAMPLE LOCATION: SAMPLE DATE:	B-047 09/02/2005	B-048 09/02/2005	B-048 09/02/2005	B-048 09/02/2005	B-048 09/02/2005

**EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-001 09/01/2005	B-001 09/01/2005	B-002 09/02/2005	B-002G 08/18/2005	B-003 09/01/2005
Antimony	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	0.50	12.00	0.50	19.00	0.50
Arsenic	6010B	(mg/kg)		<5.0U	<5.0U	<5U	<5U	<5.0
Beryllium	6010B	(mg/kg)		<8.0U	10	<8U	<8U	13
Cadmium	6010B	(mg/kg)		<1.0U	<1.0U	<1U	<1U	<1.0U
Chromium	6010B	(mg/kg)		19	16	29	10	68
Copper	6010B	(mg/kg)		20	11	27	3.2	30
Lead	6010B	(mg/kg)		120	9.4	140	<5U	140
Nickel	6010B	(mg/kg)		12	11	10	6.7	12
Selenium	6010B	(mg/kg)		<12U	<12U	<12U	<12U	<12U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651

Page 5 of 103

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-001	B-002	B-002G	B-003
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	09/01/2005	09/01/2005	09/02/2005	09/01/2005
Silver	6010B	(mg/kg)	SAMPLE DEPTH (ft@g):	0.50 <2.5U	12.00 <2.5U	0.50 <2.5U	19.00 <2.5U
Zinc	6010B	(mg/kg)		200	28	160	22B
Silver	6010B	(mg/kg)	SAMPLE LOCATION:	B-003	B-003G	B-004	B-005
Zinc	6010B	(mg/kg)	SAMPLE DATE:	09/01/2005	08/18/2005	09/01/2005	09/02/2005
Antimony	6010B	(mg/kg)	SAMPLE DEPTH (ft@g):	12.00 <5.0U	18.00 <5U	0.50 5.3	12.00 <5.0U
Arsenic	6010B	(mg/kg)		16	<8U	13	<8.0U
Beryllium	6010B	(mg/kg)		0.61	0.48	0.43	<8U
Cadmium	6010B	(mg/kg)		<1.0U	<1U	<1.0U	<1U
Chromium	6010B	(mg/kg)		18	14	91	15
Copper	6010B	(mg/kg)		15	3	39	10
Lead	6010B	(mg/kg)		11	<5U	210	61
Nickel	6010B	(mg/kg)		14	9.8	10	150
Selenium	6010B	(mg/kg)		<12U	<12U	<12U	<12U
Silver	6010B	(mg/kg)		<2.5U	<2.5U	<2.5U	<2.5U
Zinc	6010B	(mg/kg)		37	23B	150	31
Silver	6010B	(mg/kg)	SAMPLE LOCATION:	B-005G	B-006	B-006G	B-007
Zinc	6010B	(mg/kg)	SAMPLE DATE:	08/18/2005	09/01/2005	09/01/2005	09/02/2005
			SAMPLE DEPTH (ft@g):	18.00	0.50	8.00	18.00
							0.50

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-005G 08/18/2005	B-006 09/01/2005	B-006 09/01/2005	B-006G 08/18/2005	B-007 09/02/2005
SAMPLE DEPTH (ft@g):								
Antimony	6010B	(mg/kg)	<5U	<5.0U	<5.0U	<5.0U	<5U	<5U
Arsenic	6010B	(mg/kg)	<8U	8.5	<8.0U	<8.0U	<8U	<8
Beryllium	6010B	(mg/kg)	0.51	0.36	0.52	0.41	0.55	
Cadmium	6010B	(mg/kg)	<1U	<1.0U	<1.0U	<1U	<1U	
Chromium	6010B	(mg/kg)	16	22	16	16	16	23
Copper	6010B	(mg/kg)	15	28	10	4.2	32	
Lead	6010B	(mg/kg)	14	480	41	<5U	190	
Nickel	6010B	(mg/kg)	12	11	12	8	13	
Selenium	6010B	(mg/kg)	<12U	<12U	<12U	<12U	<12U	
Silver	6010B	(mg/kg)	<2.5U	<2.5U	<2.5U	<2.5U	<2.5U	
Zinc	6010B	(mg/kg)	130B	250	200	21B	180	
SAMPLE DEPTH (ft@g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-008 09/01/2005	B-008 09/01/2005	B-009 09/01/2005	B-009G 08/18/2005	B-010 09/01/2005
Antimony	6010B	(mg/kg)	0.50	12.00	0.50	11.50	11.50	0.50
Arsenic	6010B	(mg/kg)	<5.0U	<5.0U	<5.0U	<5U	<5U	<5.0U
Beryllium	6010B	(mg/kg)	<8.0U	<8.0U	<8.0U	<8U	<8U	<8U
Cadmium	6010B	(mg/kg)	0.52	0.41	0.49	0.51	0.51	0.35
Chromium	6010B	(mg/kg)	<1.0U	<1.0U	<1.0U	<1U	<1U	<1.0U
Copper	6010B	(mg/kg)	20	12	20	16	16	16
			39	<2.5U	17	5.6	5.6	16

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-008 09/01/2005	B-008 09/01/2005	B-009 09/01/2005	B-009G 08/18/2005	B-010 09/01/2005
Lead	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	0.50	12.00	0.50	11.50	0.50
Nickel	6010B	(mg/kg)		130	6.2	180	12	120
Selenium	6010B	(mg/kg)		8.4	8.9	11	9.3	8.1
Silver	6010B	(mg/kg)		<12U	<12U	<12U	<12U	<12U
Zinc	6010B	(mg/kg)		>2.5U	>2.5U	>2.5U	>2.5U	>2.5U
				98	26	120	36B	89
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-010 09/01/2005	B-010G 08/18/2005	B-011 09/01/2005	B-011G 08/18/2005	
Antimony	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	12.00	8.50	0.50	12.00	13.00
Arsenic	6010B	(mg/kg)		5.2	<5U	<5.0U	<5.0U	<5U
Beryllium	6010B	(mg/kg)		<8.0U	8.4	<8.0U	<8.0U	<8U
Cadmium	6010B	(mg/kg)		0.73	0.45	0.52	0.27	0.33
Chromium	6010B	(mg/kg)		<1.0U	<1U	<1.0U	<1.0U	<1U
Copper	6010B	(mg/kg)		26	18	18	12	9.5
Lead	6010B	(mg/kg)		3.9	24	23	3.3	3.3
Nickel	6010B	(mg/kg)		8.9	590	150	6.6	6.3
Selenium	6010B	(mg/kg)		20	10	11	7	5.1
Silver	6010B	(mg/kg)		<12U	<12U	<12U	<12U	<12U
Zinc	6010B	(mg/kg)		>2.5U	>2.5U	>2.5U	>2.5U	>2.5U
				57	210B	98	20	21B

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-012 09/01/2005	B-012 09/01/2005	B-012G 08/18/2005	B-013 09/02/2005	B-013G 08/18/2005
			SAMPLE DEPTH (ft@g):					
Antimony	6010B	(mg/kg)	<5.0U	0.50	12.00	13.00	0.50	14.00
Arsenic	6010B	(mg/kg)	8.1	9.1	<5U	<5U	<5U	<5U
Beryllium	6010B	(mg/kg)	0.52	0.41	0.51	0.69	0.28	<8U
Cadmium	6010B	(mg/kg)	<1.0U	<1.0U	<1U	<1U	<1U	<1U
Chromium	6010B	(mg/kg)	31	17	12	24	10	10
Copper	6010B	(mg/kg)	24	8.7	7.5	7.5	16	<2.5U
Lead	6010B	(mg/kg)	620	10	15	190	190	<5U
Nickel	6010B	(mg/kg)	12	9	9.9	15	15	4.5
Selenium	6010B	(mg/kg)	<12U	<12U	<12U	<12U	<12U	<12U
Silver	6010B	(mg/kg)	<2.5U	<2.5U	<2.5U	<2.5U	<2.5U	<2.5U
Zinc	6010B	(mg/kg)	180	30	27B	140	140	13B
			SAMPLE LOCATION: SAMPLE DATE:	B-014 09/02/2005	B-015 09/02/2005	B-016 09/02/2005	B-016G 08/18/2005	B-017 09/02/2005
			SAMPLE DEPTH (ft@g):					
Antimony	6010B	(mg/kg)	<5U	0.50	0.50	0.50	13.00	0.50
Arsenic	6010B	(mg/kg)	11	<8U	<5U	<5U	<5U	<5U
Beryllium	6010B	(mg/kg)	0.46	0.44	0.61	0.48	0.48	0.4
Cadmium	6010B	(mg/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Chromium	6010B	(mg/kg)	17	31	20	17	17	39
Copper	6010B	(mg/kg)	44	46	61	5.6	5.6	26

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-014 09/02/2005	B-015 09/02/2005	B-016 09/02/2005	B-016G 08/18/2005	B-017 09/02/2005
Lead	6010B	(mg/kg)	SAMPLE DEPTH (fbg): 150	0.50	0.50	0.50	13.00	0.50
Nickel	6010B	(mg/kg)	13	11	16	8	9.2	160
Selenium	6010B	(mg/kg)	<12U	<12U	<12U	<12U	<12U	<12U
Silver	6010B	(mg/kg)	>2.5U	>2.5U	>2.5U	>2.5U	>2.5U	>2.5U
Zinc	6010B	(mg/kg)	370	170	440	27B	190	140
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-018 09/02/2005	B-019 09/02/2005	B-020 09/02/2005	B-021 09/02/2005	B-022 09/02/2005
Antimony	6010B	(mg/kg)	SAMPLE DEPTH (fbg): 5.2	0.50	0.50	0.50	0.50	0.50
Arsenic	6010B	(mg/kg)	14	8.8	<8U	9.5	7.3	<5U
Beryllium	6010B	(mg/kg)	0.53	0.55	0.66	0.83	0.83	0.7
Cadmium	6010B	(mg/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Chromium	6010B	(mg/kg)	65	40	23	25	25	28
Copper	6010B	(mg/kg)	36	38	35	61	61	23
Lead	6010B	(mg/kg)	240	240	350	1200	1200	130
Nickel	6010B	(mg/kg)	12	11	13	12	12	11
Selenium	6010B	(mg/kg)	<12U	<12U	<12U	<12U	<12U	<12U
Silver	6010B	(mg/kg)	>2.5U	>2.5U	>2.5U	>2.5U	>2.5U	>2.5U
Zinc	6010B	(mg/kg)	180	170	190	310	310	120

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-023 09/01/2005	B-023 09/01/2005	B-024 09/02/2005	B-025 09/02/2005	B-026 09/02/2005
SAMPLE DEPTH (ft@g):								
Antimony	6010B	(mg/kg)	<5.0U	<5.0U	<5.0U	<5U	<5U	<5U
Arsenic	6010B	(mg/kg)	<8.0U	<8.0U	<8.0U	<8U	<8U	<8U
Beryllium	6010B	(mg/kg)	0.47	0.47	0.5	0.52	0.4	0.49
Cadmium	6010B	(mg/kg)	<1.0U	<1.0U	<1U	<1U	<1U	<1U
Chromium	6010B	(mg/kg)	19	15	24	16	34	34
Copper	6010B	(mg/kg)	29	29	23	30	32	32
Lead	6010B	(mg/kg)	150	6	160	250	190	190
Nickel	6010B	(mg/kg)	10	10	10	9.6	13	13
Selenium	6010B	(mg/kg)	<12U	<12U	<12U	<12U	<12U	<12U
Silver	6010B	(mg/kg)	<2.5U	<2.5U	<2.5U	<2.5U	<2.5U	<2.5U
Zinc	6010B	(mg/kg)	110	31	130	320	270	270
SAMPLE DEPTH (ft@g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-027 09/02/2005	B-028 09/02/2005	B-029 09/02/2005	B-030 09/02/2005	B-031 09/02/2005
Antimony	6010B	(mg/kg)	<5U	<5U	<5U	<5U	<5U	<5U
Arsenic	6010B	(mg/kg)	<8U	<8U	<8U	<8U	<8U	<8U
Beryllium	6010B	(mg/kg)	0.44	0.44	0.46	0.42	0.41	0.37
Cadmium	6010B	(mg/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Chromium	6010B	(mg/kg)	28	21	19	86	16	16
Copper	6010B	(mg/kg)	25	36	27	27	32	32

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-027 09/02/2005	B-028 09/02/2005	B-029 09/02/2005	B-030 09/02/2005	B-031 09/02/2005
SAMPLE DEPTH (fbg)								
Lead	6010B	(mg/kg)		0.50 140	0.50 130	0.50 99	0.50 610	0.50 170
Nickel	6010B	(mg/kg)		11	14	11	19	9.5
Selenium	6010B	(mg/kg)		<12U	<12U	<12U	<12U	<12U
Silver	6010B	(mg/kg)		>2.5U	>2.5U	>2.5U	>2.5U	>2.5U
Zinc	6010B	(mg/kg)		170	210	150	300	830
SAMPLE DEPTH (fbg)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-032 09/02/2005	B-033 09/02/2005	B-034 09/02/2005	B-035 09/02/2005	B-036 09/02/2005
Antimony	6010B	(mg/kg)		0.50 <5U	0.50 <5U	0.50 <5U	0.50 <5U	0.50 <5U
Arsenic	6010B	(mg/kg)		<8U	<8U	<8U	<8U	<8U
Beryllium	6010B	(mg/kg)		0.45	0.43	0.38	0.42	0.5
Cadmium	6010B	(mg/kg)		<1U	<1U	<1U	<1U	<1U
Chromium	6010B	(mg/kg)		34	14	15	16	36
Copper	6010B	(mg/kg)		30	22	24	29	28
Lead	6010B	(mg/kg)		150	79	150	790	180
Nickel	6010B	(mg/kg)		12	10	13	11	12
Selenium	6010B	(mg/kg)		<12U	<12U	<12U	<12U	<12U
Silver	6010B	(mg/kg)		>2.5U	>2.5U	>2.5U	>2.5U	>2.5U
Zinc	6010B	(mg/kg)		200	140	230	200	170

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-037 09/02/2005	B-038 09/02/2005	B-039 09/02/2005	B-040 09/02/2005	B-041 09/02/2005
SAMPLE DEPTH (ft@g):								
Antimony	6010B	(mg/kg)	<5U	0.50	0.50	<5U	0.50	0.50
Arsenic	6010B	(mg/kg)	<8U	0.50	<5U	<8U	<5U	<5U
Beryllium	6010B	(mg/kg)	0.67	0.38	0.34	<1U	<1U	<8U
Cadmium	6010B	(mg/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Chromium	6010B	(mg/kg)	50	15	12	13	15	15
Copper	6010B	(mg/kg)	16	20	26	20	32	16
Lead	6010B	(mg/kg)	69	120	75	75	54	160
Nickel	6010B	(mg/kg)	11	12	9.3	10	10	12
Selenium	6010B	(mg/kg)	<12U	<12U	<12U	<12U	<12U	<12U
Silver	6010B	(mg/kg)	<2.5U	<2.5U	<2.5U	<2.5U	<2.5U	<2.5U
Zinc	6010B	(mg/kg)	92	300	54	98	96	96
SAMPLE DEPTH (ft@g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-042 09/02/2005	B-043 09/02/2005	B-044 09/02/2005	B-045 09/02/2005	B-046 09/02/2005
Antimony	6010B	(mg/kg)	<5U	0.50	0.50	<5U	<5U	<5U
Arsenic	6010B	(mg/kg)	<8U	0.45	0.47	<8U	<8U	<8U
Beryllium	6010B	(mg/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Cadmium	6010B	(mg/kg)	15	15	17	11	11	14
Chromium	6010B	(mg/kg)	24	21	21	9.2	9.2	17

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-042 09/02/2005	B-043 09/02/2005	B-044 09/02/2005	B-045 09/02/2005	B-046 09/02/2005
Lead	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	0.50	0.50	0.50	0.50	0.50
Nickel	6010B	(mg/kg)		120	100	140	54	78
Selenium	6010B	(mg/kg)		17	17	11	7.1	9.6
Silver	6010B	(mg/kg)		<12U	<12U	<12U	<12U	<12U
Zinc	6010B	(mg/kg)		>2.5U	>2.5U	>2.5U	>2.5U	>2.5U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-047 09/02/2005	B-048 09/02/2005	B-049 09/02/2005	B-050 09/02/2005	B-051 09/02/2005
Antimony	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	0.50	0.50	0.50	0.50	0.50
Arsenic	6010B	(mg/kg)		<5U	<5U	<5U	<5U	<5U
Beryllium	6010B	(mg/kg)		<8U	<8U	<8U	<8U	<8U
Cadmium	6010B	(mg/kg)		0.45	0.45	0.45	0.36	0.36
Chromium	6010B	(mg/kg)		<1U	<1U	<1U	<1U	<1U
Copper	6010B	(mg/kg)		23	23	14	14	14
Lead	6010B	(mg/kg)		26	26	20	20	20
Nickel	6010B	(mg/kg)		180	180	110	110	110
Selenium	6010B	(mg/kg)		14	14	9.6	9.6	9.6
Silver	6010B	(mg/kg)		<12U	<12U	<12U	<12U	<12U
Zinc	6010B	(mg/kg)		>2.5U	>2.5U	>2.5U	>2.5U	>2.5U
				230	230	130	130	130

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 14 of 103

## EPA Method 7196A - Chromium, Hexavalent: AA, Colorimetric

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-001	SAMPLE DATE:	09/01/2005	B-002	B-002G	B-003
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	0.50		12.00	0.50	19.00	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	<0.435U	SAMPLE DATE:	<0.419U	<0.437U	<0.436U	<0.445U
Chromium (VI)	7196A	(mg/kg)	SAMPLE LOCATION:	B-003	SAMPLE DATE:	09/01/2005	B-004	B-004	B-005
CONSTITUENT	METHOD	UNITS	SAMPLE DEPTH (fbg):	12.00		18.00	0.50	12.00	0.50
Chromium (VI)	7196A	(mg/kg)	SAMPLE LOCATION:	<0.480U	SAMPLE DATE:	<0.447U	<0.456U	<2.49UD	<0.426U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-005G	SAMPLE DATE:	08/18/2005	B-006	B-006G	B-007
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	18.00		0.50	8.00	18.00	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	<0.455U	SAMPLE DATE:	<0.431U	<1.94UD	<0.447U	<0.428U
Chromium (VI)	7196A	(mg/kg)	SAMPLE LOCATION:	B-008	SAMPLE DATE:	09/01/2005	B-009	B-009G	B-010
CONSTITUENT	METHOD	UNITS	SAMPLE DEPTH (fbg):	0.50		12.00	0.50	11.50	0.50
Chromium (VI)	7196A	(mg/kg)	SAMPLE LOCATION:	<0.432U	SAMPLE DATE:	<0.421U	<0.447U	<0.443U	<0.443U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-010	SAMPLE DATE:	08/18/2005	B-011	B-011	B-011G
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	12.00		8.50	0.50	12.00	13.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	<0.400U	SAMPLE DATE:	<0.444U	<0.456U	<0.460U	<0.439U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

Page 15 of 103

**ANALYTICAL CHEMISTRY REPORT****EPA Method 7196A - Chromium, Hexavalent: AA, Colorimetric**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-012	B-012G	B-013	B-013G
Chromium (VI)		(mg/kg)	SAMPLE DEPTH (fbg):		09/01/2005	09/01/2005	08/18/2005	08/18/2005
				0.50	12.00	13.00	0.50	14.00
				<0.432U	<0.459U	<0.467U	<0.451U	<0.449U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-014	B-015	B-016	B-017
Chromium (VI)		(mg/kg)	SAMPLE DEPTH (fbg):		09/02/2005	09/02/2005	09/02/2005	09/02/2005
				0.50	0.50	0.50	0.50	0.50
				<4.24UD	<0.438U	<4.53UD	<0.484U	<0.427U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-018	B-019	B-020	B-022
Chromium (VI)		(mg/kg)	SAMPLE DEPTH (fbg):		09/02/2005	09/02/2005	09/02/2005	09/02/2005
				0.50	0.50	0.50	0.50	0.50
				<0.432U	<0.442U	<0.431U	<0.447U	<0.43U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-023	B-023	B-024	B-025
Chromium (VI)		(mg/kg)	SAMPLE DEPTH (fbg):		09/01/2005	09/01/2005	09/02/2005	09/02/2005
				0.50	12.00	0.50	0.50	0.50
				<0.435U	<0.440U	<0.422U	<4.42UD	<0.454U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-027	B-028	B-029	B-030
Chromium (VI)		(mg/kg)	SAMPLE DEPTH (fbg):		09/02/2005	09/02/2005	09/02/2005	09/02/2005
				0.50	0.50	0.50	0.50	0.50
				<0.443U	<0.44U	<0.434U	<4.39UD	<0.431U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

Page 16 of 103

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 7196A - Chromium, Hexavalent: AA, Colorimetric

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	RESULTS:	REPORTING STANDARD:	TEST DATE:
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	B-032	0.50	B-034	B-035
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	<0.414U	<0.426U	<0.426U	0.50
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	B-037	0.50	B-039	B-040
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	<0.43U	<0.433U	<0.422U	0.50
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	B-042	0.50	B-043	B-044
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	<0.413U	<0.43U	<0.438U	0.50
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	B-047	0.50	B-048	B-049
Chromium (VI)	7196A	(mg/kg)	SAMPLE DEPTH (fbg):	<0.416U	<0.42U	<0.422U	0.50

## EPA Method 7471A - Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 17 of 103

## EPA Method 7471A - Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-001	B-002	B-002G	B-003
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):		0.50	12.00	0.50	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-003	B-004	B-004	B-005
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):		0.27	<0.100U	0.556	<0.1U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-005	B-005	B-005	B-005
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):		12.00	18.00	0.50	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-005G	B-006	B-006G	B-007
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):		0.1U	<0.1U	0.6	1.1D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-008	B-008	B-008	B-008
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):		18.00	0.50	8.00	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-008	B-024	B-024	B-028D
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):		<0.1U	0.728D	0.424	0.218
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-009	B-009	B-009G	B-010
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):		0.50	12.00	0.50	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-010	B-010G	B-011	B-011G
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):		0.467	<0.100U	0.48	--
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-010	B-010	B-011	B-011
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):		12.00	8.50	0.50	13.00

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 18 of 103

## EPA Method 7471A - Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	RESULTS:	REPORTING STANDARD:	REPORTING DATE:
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	0.50	12.00	13.00	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-014	B-016	B-016G
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	0.50	0.50	0.50	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-018	B-019	B-020
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	0.50	0.50	0.50	0.50
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-023	B-024	B-025
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	0.579	1.17D	0.493	0.479
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-027	B-028	B-029
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	0.535	<0.100U	0.482	0.489
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-027	B-028	B-030
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	0.573D	0.354	0.199	0.286

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 19 of 103

## EPA Method 7471A - Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	RESULTS:	REPORTING STANDARD:	REPORTING DATE:
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	B-032	0.50	B-034	B-035
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	0.426	0.211	0.50	0.50
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	B-037	0.309	0.326	0.50
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	B-038	0.309	0.326	0.50
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	5.45D	0.231	0.194	0.192
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	B-042	0.50	0.50	0.50
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	2.54D	0.43	0.43	0.43
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	B-047	0.50	0.50	0.50
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	0.684	0.408	0.408	0.408

## EPA Method 7841 - Thallium: AA, Furnace Technique

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 7841 - Thallium: AA, Furnace Technique

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-001	B-002	B-002G	B-003
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50	12.00	0.50	19.00	0.50
				<0.10U	<0.10U	<0.1U	<0.1U	<0.10U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-003	B-004	B-004	B-005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	12.00	18.00	0.50	12.00	0.50
				<0.10U	<0.1U	<0.10U	<0.10U	<0.1U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-005G	B-006	B-006G	B-007
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	18.00	0.50	8.00	18.00	0.50
				<0.1U	<0.10U	0.12	<0.1U	<0.1U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-008	B-009	B-009G	B-010
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50	12.00	0.50	11.50	0.50
				<0.10U	<0.10U	<0.10	<0.1U	0.13
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-010	B-010G	B-011	B-011G
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	12.00	8.50	0.50	12.00	13.00
				0.17	0.11	<0.10U	<0.10	<0.1U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 7841 - Thallium: AA, Furnace Technique

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	RESULTS	REPORTING STANDARD	
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	B-012 09/01/2005	B-012 08/18/2005	B-012G 09/02/2005	B-013 08/18/2005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50 <0.10U	12.00 <0.10U	13.00 <0.1U	0.50 0.13 <0.1U
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	B-014 09/02/2005	B-014 09/02/2005	B-015 09/02/2005	B-016G 08/18/2005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	B-018 09/02/2005	B-018 09/02/2005	B-019 09/02/2005	B-020 09/02/2005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	B-023 09/01/2005	B-023 09/01/2005	B-024 09/02/2005	B-025 09/02/2005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50 <0.10U	12.00 0.11	0.50 <0.1	0.50 <0.1U
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	B-027 09/02/2005	B-027 09/02/2005	B-028 09/02/2005	B-029 09/02/2005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 7841 - Thallium: AA, Furnace Technique

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	REPORT ID:	REPORT DATE:
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	B-032 09/02/2005	B-033 09/02/2005	B-034 09/02/2005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	B-037 09/02/2005	B-038 09/02/2005	B-039 09/02/2005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	B-042 09/02/2005	B-043 09/02/2005	B-044 09/02/2005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	B-047 09/02/2005	B-048 09/02/2005	B-049 09/02/2005
Thallium	7841	(mg/kg)	SAMPLE DEPTH (fbg):	0.50 <0.1U	0.50 <0.1U	0.50 <0.1U

## EPA Method 8082 - Polychlorinated Biphenyls

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 23 of 103

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-001 09/01/2005	B-001 09/01/2005	B-002 09/02/2005	B-002G 08/18/2005	B-003 09/01/2005
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(ug/kg)	>2500UD	<50U	<2500UD	<50U	<50U	<100UD
PCB (Aroclor 1221)	8082	(ug/kg)	>2500UD	<50U	<2500UD	<50U	<50U	<100UD
PCB (Aroclor 1232)	8082	(ug/kg)	>2500UD	<50U	<2500UD	<50U	<50U	<100UD
PCB (Aroclor 1242)	8082	(ug/kg)	>2500UD	<50U	<2500UD	<50U	<50U	<100UD
PCB (Aroclor 1248)	8082	(ug/kg)	>2500UD	<50U	<2500UD	<50U	<50U	<100UD
PCB (Aroclor 1244)	8082	(ug/kg)	7600D	<50U	2900D	<50U	<50U	390D
PCB (Aroclor 1260)	8082	(ug/kg)	>2500UD	<50U	3400D	<50U	<50U	330D
PCB( Total Aroclors)	8082	(ug/kg)	7600D	<50U	6300D	<50U	<50U	720D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-003 09/01/2005	B-003G 08/18/2005	B-004 09/01/2005	B-004 09/01/2005	B-005 09/02/2005
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(ug/kg)	<50U	<50U	<50U	<50U	<50U	<5000UD
PCB (Aroclor 1221)	8082	(ug/kg)	<50U	<50U	<50U	<50U	<50U	<5000UD
PCB (Aroclor 1232)	8082	(ug/kg)	<50U	<50U	<50U	<50U	<50U	<5000UD
PCB (Aroclor 1242)	8082	(ug/kg)	<50U	<50U	<50U	<50U	<50U	<5000UD
PCB (Aroclor 1248)	8082	(ug/kg)	<50U	<50U	<50U	<50U	<50U	<5000UD
PCB (Aroclor 1244)	8082	(ug/kg)	<50U	<50U	<50U	<50U	<50U	<5000UD
PCB (Aroclor 1260)	8082	(ug/kg)	<50U	<50U	<50U	<50U	<50U	14000D
PCB( Total Aroclors)	8082	(ug/kg)	<50U	<50U	<50U	<50U	<50U	14000D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 24 of 103

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-005G 08/18/2005	B-006 09/01/2005	B-006 09/01/2005	B-006G 08/18/2005	B-007 09/02/2005
SAMPLE DEPTH (ft@g):								
PCB (Aroclor 1016)	8082	(ug/kg)	<50U	>2500UD	<50U	<50U	<50U	<500UD
PCB (Aroclor 1221)	8082	(ug/kg)	<50U	>2500UD	<50U	<50U	<50U	<500UD
PCB (Aroclor 1232)	8082	(ug/kg)	<50U	>2500UD	<50U	<50U	<50U	<500UD
PCB (Aroclor 1242)	8082	(ug/kg)	<50U	>2500UD	<50U	<50U	<50U	<500UD
PCB (Aroclor 1248)	8082	(ug/kg)	<50U	>2500UD	<50U	<50U	<50U	<500UD
PCB (Aroclor 1244)	8082	(ug/kg)	<50U	9000D	89	<50U	<50U	<500UD
PCB (Aroclor 1260)	8082	(ug/kg)	<50U	11000DE	<50U	<50U	<50U	<500UD
PCB( Total Aroclors)	8082	(ug/kg)	<50U	20000E	89	<50U	<50U	<500UD
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-008 09/01/2005	B-008 09/01/2005	B-009 09/01/2005	B-009G 08/18/2005	B-010 09/01/2005
SAMPLE DEPTH (ft@g):								
PCB (Aroclor 1016)	8082	(ug/kg)	<100UD	<50U	<100UD	<50U	<100UD	<83UD
PCB (Aroclor 1221)	8082	(ug/kg)	<100UD	<50U	<100UD	<50U	<100UD	<83UD
PCB (Aroclor 1232)	8082	(ug/kg)	<100UD	<50U	<100UD	<50U	<100UD	<83UD
PCB (Aroclor 1242)	8082	(ug/kg)	<100UD	<50U	<100UD	<50U	<100UD	<83UD
PCB (Aroclor 1248)	8082	(ug/kg)	<100UD	<50U	<100UD	<50U	<100UD	<83UD
PCB (Aroclor 1244)	8082	(ug/kg)	480DE	<50U	480DE	<50U	<100UD	<83UD
PCB (Aroclor 1260)	8082	(ug/kg)	<100UD	<50U	290D	290D	<83UD	1600D
PCB( Total Aroclors)	8082	(ug/kg)	480E	<50U	290D	290D	260D	1600D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 25 of 103

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-010 09/01/2005	B-010G 08/18/2005	B-011 09/01/2005	B-011G 08/18/2005
SAMPLE DEPTH (fbg)							
PCB (Aroclor 1016)	8082	(ug/kg)	<50U	<50U	<75UD	<50U	<50U
PCB (Aroclor 1221)	8082	(ug/kg)	<50U	<50U	<75UD	<50U	<50U
PCB (Aroclor 1232)	8082	(ug/kg)	<50U	<50U	<75UD	<50U	<50U
PCB (Aroclor 1242)	8082	(ug/kg)	<50U	<50U	<75UD	<50U	<50U
PCB (Aroclor 1248)	8082	(ug/kg)	<50U	<50U	<75UD	<50U	<50U
PCB (Aroclor 1244)	8082	(ug/kg)	<50U	<50U	<75UD	<50U	<50U
PCB (Aroclor 1260)	8082	(ug/kg)	<50U	<50U	<75UD	<50U	<50U
PCB( Total Aroclors)	8082	(ug/kg)	<50U	<50U	<75UD	<50U	<50U
SAMPLE DEPTH (fbg)							
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-012 09/01/2005	B-012G 08/18/2005	B-013 09/02/2005	B-013G 08/18/2005
PCB (Aroclor 1016)	8082	(ug/kg)	<200UD	<50U	<50U	<500UD	<500UD
PCB (Aroclor 1221)	8082	(ug/kg)	<200UD	<50U	<50U	<500UD	<500UD
PCB (Aroclor 1232)	8082	(ug/kg)	<200UD	<50U	<50U	<500UD	<500UD
PCB (Aroclor 1242)	8082	(ug/kg)	<200UD	<50U	<50U	<500UD	<500UD
PCB (Aroclor 1248)	8082	(ug/kg)	<200UD	<50U	<50U	<500UD	<500UD
PCB (Aroclor 1244)	8082	(ug/kg)	560D	<50U	<50U	<500UD	<500UD
PCB (Aroclor 1260)	8082	(ug/kg)	<200UD	<50U	<50U	<500UD	<500UD
PCB( Total Aroclors)	8082	(ug/kg)	560D	<50U	<50U	<500UD	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 26 of 103

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-014 09/02/2005	B-015 09/02/2005	B-016 09/02/2005	B-016G 08/18/2005	B-017 09/02/2005
			SAMPLE DEPTH (fbg)	0.50	0.50	0.50	13.00	0.50
PCB (Aroclor 1016)	8082	(ug/kg)	<5000UD	<5000UD	<5000UD	<500UD	<50U	<7800UD
PCB (Aroclor 1221)	8082	(ug/kg)	<5000UD	<5000UD	<5000UD	<500UD	<50U	<7800UD
PCB (Aroclor 1232)	8082	(ug/kg)	<5000UD	<5000UD	<5000UD	<500UD	<50U	<7800UD
PCB (Aroclor 1242)	8082	(ug/kg)	<5000UD	<5000UD	<5000UD	<500UD	<50U	<7800UD
PCB (Aroclor 1248)	8082	(ug/kg)	<5000UD	<5000UD	<5000UD	<500UD	<50U	<7800UD
PCB (Aroclor 1244)	8082	(ug/kg)	8000D	<5000UD	6500D	<50U	<50U	<7800UD
PCB (Aroclor 1260)	8082	(ug/kg)	<5000UD	9700D	5300D	<50U	<50U	25000D
PCB( Total Aroclors)	8082	(ug/kg)	8000D	9700D	11800D	<50U	<50U	25000D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-018 09/02/2005	B-019 09/02/2005	B-020 09/02/2005	B-021 09/02/2005	B-022 09/02/2005
			SAMPLE DEPTH (fbg)	0.50	0.50	0.50	0.50	0.50
PCB (Aroclor 1016)	8082	(ug/kg)	<5000UD	<5000UD	<500UD	<400UD	<400UD	<5000UD
PCB (Aroclor 1221)	8082	(ug/kg)	<5000UD	<5000UD	<500UD	<400UD	<400UD	<5000UD
PCB (Aroclor 1232)	8082	(ug/kg)	<5000UD	<5000UD	<500UD	<400UD	<400UD	<5000UD
PCB (Aroclor 1242)	8082	(ug/kg)	<5000UD	<5000UD	<500UD	<400UD	<400UD	<5000UD
PCB (Aroclor 1248)	8082	(ug/kg)	<5000UD	<5000UD	<500UD	<400UD	<400UD	<5000UD
PCB (Aroclor 1244)	8082	(ug/kg)	<5000UD	800D	<500UD	640D	640D	7000D
PCB (Aroclor 1260)	8082	(ug/kg)	20000DE	<500UD	<500UD	<400UD	<400UD	<5000UD
PCB( Total Aroclors)	8082	(ug/kg)	20000E	800D	<500UD	640D	640D	7000D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 27 of 103

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-023	B-023	B-024	B-025	B-026
SAMPLE DEPTH (fbg):									
PCB (Aroclor 1016)	8082	(ug/kg)	<250UD	09/01/2005	<50U	<500UD	<2500UD	<5000UD	<50000UD
PCB (Aroclor 1221)	8082	(ug/kg)	<250UD	09/01/2005	<50U	<500UD	<2500UD	<5000UD	<50000UD
PCB (Aroclor 1232)	8082	(ug/kg)	<250UD	09/01/2005	<50U	<500UD	<2500UD	<5000UD	<50000UD
PCB (Aroclor 1242)	8082	(ug/kg)	<250UD	09/01/2005	<50U	<500UD	<2500UD	<5000UD	<50000UD
PCB (Aroclor 1248)	8082	(ug/kg)	<250UD	09/01/2005	<50U	<500UD	<2500UD	<5000UD	<50000UD
PCB (Aroclor 1244)	8082	(ug/kg)	<250UD	09/01/2005	<50U	<500UD	<2500UD	<5000UD	<50000UD
PCB (Aroclor 1260)	8082	(ug/kg)	<250UD	09/01/2005	<50U	<500UD	<2500UD	<5000UD	<50000UD
PCB( Total Aroclors)	8082	(ug/kg)	<250UD	09/01/2005	<50U	<500UD	<2500UD	<5000UD	<50000UD
SAMPLE DEPTH (fbg):									
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-027	B-028	B-029	B-030	B-031
PCB (Aroclor 1016)	8082	(ug/kg)	<5000UD	09/02/2005	<500UD	<500UD	<500UD	<3500UD	<5000UD
PCB (Aroclor 1221)	8082	(ug/kg)	<5000UD	09/02/2005	<500UD	<500UD	<500UD	<3500UD	<5000UD
PCB (Aroclor 1232)	8082	(ug/kg)	<5000UD	09/02/2005	<500UD	<500UD	<500UD	<3500UD	<5000UD
PCB (Aroclor 1242)	8082	(ug/kg)	<5000UD	09/02/2005	<500UD	<500UD	<500UD	<3500UD	<5000UD
PCB (Aroclor 1248)	8082	(ug/kg)	<5000UD	09/02/2005	<500UD	<500UD	<500UD	<3500UD	<5000UD
PCB (Aroclor 1244)	8082	(ug/kg)	<5000UD	09/02/2005	<500UD	<500UD	<500UD	<3500UD	<5000UD
PCB (Aroclor 1260)	8082	(ug/kg)	12000D	09/02/2005	<500UD	<500UD	2000D	5900D	10000D
PCB( Total Aroclors)	8082	(ug/kg)	12000D	09/02/2005	<500UD	<500UD	2000D	5900D	10000D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 28 of 103

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-032	B-033	B-034	B-035	B-036
SAMPLE DEPTH (fbg)									
PCB (Aroclor 1016)	8082	(ug/kg)	<500UD	<500UD	0.50	0.50	0.50	0.50	0.50
PCB (Aroclor 1221)	8082	(ug/kg)	<500UD	<500UD	<500UD	<500UD	<500UD	<5000UD	<25000UD
PCB (Aroclor 1232)	8082	(ug/kg)	<500UD	<500UD	<500UD	<500UD	<500UD	<5000UD	<25000UD
PCB (Aroclor 1242)	8082	(ug/kg)	<500UD	<500UD	<500UD	<500UD	<500UD	<5000UD	<25000UD
PCB (Aroclor 1248)	8082	(ug/kg)	<500UD	<500UD	<500UD	<500UD	<500UD	<5000UD	<25000UD
PCB (Aroclor 1244)	8082	(ug/kg)	890D	2200DE	<5000UD	<5000UD	<5000UD	<5000UD	<5000UD
PCB (Aroclor 1260)	8082	(ug/kg)	<500UD	<500UD	9600D	15000D	15000D	15000D	61000D
PCB( Total Aroclors)	8082	(ug/kg)	890D	2200E	9600D	15000D	15000D	15000D	61000D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-037	B-038	B-039	B-040	B-041
SAMPLE DEPTH (fbg)									
PCB (Aroclor 1016)	8082	(ug/kg)	<8100UD	<8100UD	<4000UD	<4000UD	<50000UD	<50000UD	<500000UD
PCB (Aroclor 1221)	8082	(ug/kg)	<8100UD	<8100UD	<4000UD	<4000UD	<50000UD	<50000UD	<500000UD
PCB (Aroclor 1232)	8082	(ug/kg)	<8100UD	<8100UD	<4000UD	<4000UD	<50000UD	<50000UD	<500000UD
PCB (Aroclor 1242)	8082	(ug/kg)	<8100UD	<8100UD	<4000UD	<4000UD	<50000UD	<50000UD	<500000UD
PCB (Aroclor 1248)	8082	(ug/kg)	<8100UD	<8100UD	<4000UD	<4000UD	<50000UD	<50000UD	<500000UD
PCB (Aroclor 1244)	8082	(ug/kg)	<8100UD	<8100UD	<4000UD	<4000UD	<50000UD	<50000UD	<500000UD
PCB (Aroclor 1260)	8082	(ug/kg)	34000D	4100D	150000D	150000D	7300D	150000D	150000D
PCB( Total Aroclors)	8082	(ug/kg)	34000D	4100D	150000D	150000D	7300D	150000D	150000D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 29 of 103

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-042	B-043	B-044	B-045	B-046
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005
PCB (Aroclor 1016)	8082	(ug/kg)	SAMPLE DEPTH (ft@g)	0.50	0.50	0.50	0.50	0.50
PCB (Aroclor 1221)	8082	(ug/kg)	<50000UD	<25000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1232)	8082	(ug/kg)	<50000UD	<25000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1242)	8082	(ug/kg)	<50000UD	<25000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1248)	8082	(ug/kg)	<50000UD	<25000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1244)	8082	(ug/kg)	<50000UD	<25000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1260)	8082	(ug/kg)	80000D	80000D	7300D	11000D	13000D	13000D
PCB( Total Aroclors)	8082	(ug/kg)	80000D	80000D	7300D	11000D	13000D	13000D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-047	B-048	B-049	B-050	B-051
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005
PCB (Aroclor 1016)	8082	(ug/kg)	SAMPLE DEPTH (ft@g)	0.50	0.50	0.50	0.50	0.50
PCB (Aroclor 1221)	8082	(ug/kg)	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1232)	8082	(ug/kg)	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1242)	8082	(ug/kg)	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1248)	8082	(ug/kg)	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1244)	8082	(ug/kg)	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB (Aroclor 1260)	8082	(ug/kg)	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD	<50000UD
PCB( Total Aroclors)	8082	(ug/kg)	16200D	16200D	16200D	16200D	16200D	16200D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.

React Environmental  
Professional Services Group, Inc.

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-001 09/01/2005	B-002 09/02/2005	B-002G 08/18/2005	B-003 09/01/2005
SAMPLE DEPTH (ft/kg):							
1,1,1-trichloroethane	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
1,1,2-Trichloroethane	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
1,1-Dichloroethane	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
1,1-Dichloroethylene	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
1,2-Dichloroethane	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
1,2-Dichloropropane	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
2-Hexanone	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)	<1.0U	<1.0U	<1U	<1U	<1.0U
Bromodichloromethane	8260B	(ug/kg)	<1.0U	<1.0U	<1U	<1U	<1.0U
Bromoform	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
Carbon disulfide	8260B	(ug/kg)	<15U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
Chlorobenzene	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
Chloroethane	8260B	(ug/kg)	<4.0U	<4.0U	<4U	<4U	<4.0U
Chloroform	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
Dibromochloromethane	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
Ethylbenzene	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 31 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-001	B-002	B-002G	B-003
			SAMPLE DATE:	09/01/2005	09/02/2005	08/18/2005	09/01/2005
			SAMPLE DEPTH (ft@g):				
Methyl bromide	8260B	(ug/kg)	<3.0U	<3.0U	<3U	<3U	<3.0U
Methyl chloride	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U
Methyl tert-butyl ether	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
Methylene chloride	8260B	(ug/kg)	<30U	<30U	<30U	<30U	<30U
Styrene	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
Tetrachloroethylene	8260B	(ug/kg)	<1.0U	<1.0U	<1U	<1U	<1.0U
Toluene	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
Trichloroethylene	8260B	(ug/kg)	<1.0U	<1.0U	<1U	<1U	<1.0U
Trichlorofluoromethane	8260B	(ug/kg)	3.4	<2.0U	<2U	<2U	<2.0U
Vinyl chloride	8260B	(ug/kg)	<2.0U	<2.0U	<2U	<2U	<2.0U
Xylene (total)	8260B	(ug/kg)	<6.0U	<6.0U	<6U	<6U	<6.0U
			SAMPLE LOCATION:	B-003	B-003G	B-004	B-005
			SAMPLE DATE:	09/01/2005	08/18/2005	09/01/2005	09/02/2005
			SAMPLE DEPTH (ft@g):				
1,1,1-trichloroethane	8260B	(ug/kg)	<1.7U	<2U	<2.0U	<2.6U	<2U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<1.7U	<2U	<2.0U	<2.6U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 32 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-003 09/01/2005	B-003G 08/18/2005	B-004 09/01/2005	B-004 09/01/2005	B-005 09/02/2005
SAMPLE DEPTH (ft@e)								
1,1,2-Trichloroethane	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
1,1-Dichloroethane	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
1,1-Dichloroethylene	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
1,2-Dichloroethane	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
1,2-Dichloropropane	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
2-Hexanone	8260B	(ug/kg)		<8.3U	<10U	<10U	<13U	<10U
Acetone	8260B	(ug/kg)		<83U	<100U	<100U	<130U	<100U
Benzene	8260B	(ug/kg)		<0.83U	<1U	<1.0U	<1.3U	<1U
Bromodichloromethane	8260B	(ug/kg)		<0.83U	<1U	<1.0U	<1.3U	<1U
Bromoform	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
Carbon disulfide	8260B	(ug/kg)		<12U	<15U	<19U	<19U	<15U
Carbon tetrachloride	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
Chlorobenzene	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
Chloroethane	8260B	(ug/kg)		<3.3U	<4U	<4.0U	<5.2U	<4U
Chloroform	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
Dibromochloromethane	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
Ethylbenzene	8260B	(ug/kg)		<1.7U	<2U	<2.0U	<2.6U	<2U
Methyl bromide	8260B	(ug/kg)		<2.5U	<3U	<3.0U	<3.9U	<3U
Methyl chloride	8260B	(ug/kg)		<8.3U	<10U	<10U	<13U	<10U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 33 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-003	B-003G	B-004	B-005
SAMPLE DEPTH (ft@g)								
Methyl ethyl ketone	8260B	(ug/kg)	<83U	<100U	<100U	<100U	<130U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<8.3U	<10U	<10U	<10U	<13U	<10U
Methyl tert-butyl ether	8260B	(ug/kg)	<1.7U	<2U	<2U	<2U	<2.6U	<2U
Methylene chloride	8260B	(ug/kg)	<25U	<30U	<30U	<39U	<30U	<30U
Styrene	8260B	(ug/kg)	<1.7U	<2U	<2U	<2.6U	<2U	<2U
Tetrachloroethylene	8260B	(ug/kg)	<0.83U	<1U	<1U	<1.3U	<1U	<1U
Toluene	8260B	(ug/kg)	<1.7U	<2U	<2U	<2.6U	<2U	<2U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	<1.7U	<2U	<2U	<2.6U	<2U	<2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<1.7U	<2U	<2.9U	<2.6U	<2U	<2U
Trichloroethylene	8260B	(ug/kg)	<0.83U	<1U	<1U	<1.3U	<1U	<1U
Trichlorofluoromethane	8260B	(ug/kg)	<1.7U	<2U	5.8	<2.6U	<2U	<2U
Vinyl chloride	8260B	(ug/kg)	<1.7U	<2U	<2.0U	<2.6U	<2U	<2U
Xylene (total)	8260B	(ug/kg)	<5.0U	<6U	<6.0U	<7.8U	<6U	<6U
SAMPLE DEPTH (ft@g)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-005G	B-006	B-006G	B-007
1,1,1-trichloroethane	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2U	<2U	<2U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2U	<2U	<2U
1,1,2-Trichloroethane	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2U	<2U	<2U
1,1-Dichloroethane	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2U	<2U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 34 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-005G 08/18/2005	B-006 09/01/2005	B-006 09/01/2005	B-006G 08/18/2005	B-007 09/02/2005
SAMPLE DEPTH (ft@e)								
1,1-Dichloroethylene	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
1,2-Dichloroethane	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
1,2-Dichloropropane	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
2-Hexanone	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)	<1U	<1.0U	<1.0U	<1.0U	<1U	<1U
Bromodichloromethane	8260B	(ug/kg)	<1U	<1.0U	<1.0U	<1.0U	<1U	<1U
Bromoform	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Carbon disulfide	8260B	(ug/kg)	<15U	<15U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Chlorobenzene	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Chloroethane	8260B	(ug/kg)	<4U	<4.0U	<4.0U	<4.0U	<4U	<4U
Chloroform	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Dibromochloromethane	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Ethylbenzene	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Methyl bromide	8260B	(ug/kg)	<3U	<3.0U	<3.0U	<3.0U	<3U	<3U
Methyl chloride	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 35 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-005G 08/18/2005	B-006 09/01/2005	B-006 09/01/2005	B-006G 08/18/2005	B-007 09/02/2005
SAMPLE DEPTH (ft/g):								
Methyl tert-butyl ether	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Methylene chloride	8260B	(ug/kg)	<30U	<30U	<30U	<30U	<30U	<30U
Styrene	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Tetrachloroethylene	8260B	(ug/kg)	<1U	<1.0U	<1.0U	<1.0U	<1U	<1U
Toluene	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
trans-1,2-Dichloroethylene	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Trichloroethylene	8260B	(ug/kg)	<1U	<1.0U	<1.0U	<1.0U	<1U	<1U
Trichlorofluoromethane	8260B	(ug/kg)	<2U	6.8	6.8	3.3	<2U	<2U
Vinyl chloride	8260B	(ug/kg)	<2U	<2.0U	<2.0U	<2.0U	<2U	<2U
Xylene (total)	8260B	(ug/kg)	<6U	<6.0U	<6.0U	<6.0U	<6U	<6U
SAMPLE DEPTH (ft/g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-008 09/01/2005	B-008 09/01/2005	B-009 09/01/2005	B-009G 08/18/2005	B-010 09/01/2005
1,1,1-trichloroethane	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
1,1,2-Trichloroethane	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
1,1-Dichloroethane	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
1,1-Dichloroethylene	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
1,2-Dichloroethane	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651

Page 36 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-008 09/01/2005	B-008 09/01/2005	B-009 09/01/2005	B-009G 08/18/2005	B-010 09/01/2005
SAMPLE DEPTH (ft/kg):								
1,2-Dichloropropane	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2U	<2U	<2.0U
2-Hexanone	8260B	(ug/kg)	<7.3U	<10U	<10U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)	<73U	<100U	<100U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)	0.91	<1.0U	<1.0U	<1U	<1U	<1.0U
Bromodichloromethane	8260B	(ug/kg)	<0.73U	<1.0U	<1.0U	<1U	<1U	<1.0U
Bromoform	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2U	<2U	<2.0U
Carbon disulfide	8260B	(ug/kg)	<11U	<15U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2U	<2U	<2.0U
Chlorobenzene	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2.0U	<2.0U
Chloroethane	8260B	(ug/kg)	<2.9U	<4.0U	<4.0U	<4U	<4U	<4.0U
Chloroform	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2U	<2U	<2.0U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2U	<2U	<2.0U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2U	<2U	<2.0U
Dibromochloromethane	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2U	<2U	<2.0U
Ethylbenzene	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2U	<2U	<2.0U
Methyl bromide	8260B	(ug/kg)	<2.2U	<3.0U	<3.0U	<3U	<3U	<3.0U
Methyl chloride	8260B	(ug/kg)	<7.3U	<10U	<10U	<10U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<73U	<100U	<100U	<100U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<7.3U	<10U	<10U	<10U	<10U	<10U
Methyl tert-butyl ether	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2U	<2U	<2.0U
Methylene chloride	8260B	(ug/kg)	<22U	<30U	<30U	<30U	<30U	<30U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 37 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-008 09/01/2005	B-008 09/01/2005	B-009 09/01/2005	B-009G 08/18/2005	B-010 09/01/2005
SAMPLE DEPTH (ft@g):								
Styrene	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
Tetrachloroethylene	8260B	(ug/kg)	<0.73U	<1.0U	<1.0U	<1.0U	<1U	<1.0U
Toluene	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
Trichloroethylene	8260B	(ug/kg)	<0.73U	<1.0U	<1.0U	<1.0U	<1U	<1.0U
Trichlorofluoromethane	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	4.5
Vinyl chloride	8260B	(ug/kg)	<1.5U	<2.0U	<2.0U	<2.0U	<2U	<2.0U
Xylene (total)	8260B	(ug/kg)	<4.4U	<6.0U	<6.0U	<6.0U	<6U	<6.0U
SAMPLE DEPTH (ft@g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-010 09/01/2005	B-010G 08/18/2005	B-011 09/01/2005	B-011 08/18/2005	B-011G 08/18/2005
1,1,1-trichloroethane	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
1,1,2-Trichloroethane	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
1,1-Dichloroethane	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
1,1-Dichloroethylene	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
1,2-Dichloroethane	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
1,2-Dichloropropane	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
2-Hexanone	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<7.8U	<10U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 38 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-010 09/01/2005	B-010G 08/18/2005	B-011 09/01/2005	B-011 09/01/2005	B-011G 08/18/2005
SAMPLE DEPTH (ft@e)								
Acetone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<78U	<100U
Benzene	8260B	(ug/kg)	<1.0U	<1U	<1.0U	<1.0U	<0.78U	1.6
Bromodichloromethane	8260B	(ug/kg)	<1.0U	<1U	<1.0U	<1.0U	<0.78U	<1U
Bromoform	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
Carbon disulfide	8260B	(ug/kg)	<15U	<15U	<15U	<12U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
Chlorobenzene	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
Chloroethane	8260B	(ug/kg)	<4.0U	<4U	<4.0U	<4.0U	<3.1U	<4U
Chloroform	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
Dibromochloromethane	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
Ethylbenzene	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
Methyl bromide	8260B	(ug/kg)	<3.0U	<3U	<3.0U	<3.0U	<2.4U	<3U
Methyl ethyl ketone	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<7.8U	<10U
Methyl isobutylketone (MBK)	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<78U	<100U
Methyl tert-butyl ether	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
Methylene chloride	8260B	(ug/kg)	<30U	<30U	<30U	<30U	<24U	<30U
Styrene	8260B	(ug/kg)	<2.0U	<2U	<2.0U	<2.0U	<1.6U	<2U
Tetrachloroethylene	8260B	(ug/kg)	<1.0U	6.1	<1.0U	<1.0U	<0.78U	<1U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 39 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-010	B-010G	B-011	B-011G
SAMPLE DEPTH (ft@g):								
Toluene	8260B	(ug/kg)	<2.0U	09/01/2005	<2.0U	<2.0U	<1.6U	<2U
trans-1,2-Dichloroethylene	8260B	(ug/kg)	<2.0U	08/18/2005	<2.0U	<2.0U	<1.6U	<2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2.0U	09/01/2005	<2.0U	<2.0U	<1.6U	<2U
Trichloroethylene	8260B	(ug/kg)	<1.0U	08/18/2005	1.6	<1.0U	<0.78U	<1U
Trichlorofluoromethane	8260B	(ug/kg)	<2.0U	09/01/2005	<2.0U	<2.0U	3.8	<2U
Vinyl chloride	8260B	(ug/kg)	<2.0U	09/01/2005	<2.0U	<2.0U	<1.6U	<2U
Xylylene (total)	8260B	(ug/kg)	<6.0U	08/18/2005	<6.0U	<6.0U	<4.7U	<6U
SAMPLE DEPTH (ft@g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-012	B-012G	B-013	B-013G
					09/01/2005	09/01/2005	09/02/2005	08/18/2005
	SAMPLE DEPTH (ft@g):							
1,1,1-Trichloroethane	8260B	(ug/kg)	0.50	09/01/2005	12.00	13.00	0.50	14.00
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<2.0U	09/01/2005	<1.6U	<2U	<2U	<2U
1,1,2-Trichloroethane	8260B	(ug/kg)	<2.0U	09/01/2005	<1.6U	<2U	<2U	<2U
1,1-Dichloroethane	8260B	(ug/kg)	<2.0U	09/01/2005	<1.6U	<2U	<2U	<2U
1,1-Dichloroethylene	8260B	(ug/kg)	<2.0U	09/01/2005	<1.6U	<2U	<2U	<2U
1,2-Dichloroethane	8260B	(ug/kg)	<2.0U	09/01/2005	<1.6U	<2U	<2U	<2U
1,2-Dichloropropane	8260B	(ug/kg)	<2.0U	09/01/2005	<1.6U	<2U	<2U	<2U
2-Hexanone	8260B	(ug/kg)	<10U	09/01/2005	<8.0U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)	<100U	09/01/2005	<80U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)	<1.0U	09/01/2005	<0.80U	<1U	<1U	<1U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651

Page 40 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-012 09/01/2005	B-012 09/01/2005	B-012G 08/18/2005	B-013 09/02/2005	B-013G 08/18/2005
SAMPLE DEPTH (ft/kg):								
Bromodichloromethane	8260B	(ug/kg)	<1.0U	<0.80U	<1.0U	12.00	13.00	0.50
Bromoform	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<1U	<1U
Carbon disulfide	8260B	(ug/kg)	<15U	<12U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U
Chlorobenzene	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U
Chloroethane	8260B	(ug/kg)	<4.0U	<3.2U	<4.0U	<3.2U	<4U	<4U
Chloroform	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U
Dibromochloromethane	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U
Ethylbenzene	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U
Methyl bromide	8260B	(ug/kg)	<3.0U	<2.4U	<3.0U	<2.4U	<3U	<3U
Methyl chloride	8260B	(ug/kg)	<10U	<8.0U	<10U	<8.0U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<80U	<100U	<80U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<8.0U	<10U	<8.0U	<10U	<10U
Methyl tert-butyl ether	8260B	(ug/kg)	<2.0U	<1.6U	<2.0U	<1.6U	<2U	<2U
Methylene chloride	8260B	(ug/kg)	<30U	<24U	<30U	<24U	<30U	<30U
Styrene	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U
Tetrachloroethylene	8260B	(ug/kg)	<1.0U	1.6	<1.0U	1.6	<1U	<1U
Toluene	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	>2.0U	<1.6U	>2.0U	<1.6U	<2U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-012 09/01/2005	B-012 09/01/2005	B-012G 08/18/2005	B-013 09/02/2005	B-013G 08/18/2005
trans-1,3-Dichloropropene	8260B	(ug/kg)	SAMPLE DEPTH (fbg): <2.0U	0.50 <1.6U	12.00 <2U	13.00 <2U	0.50 <2U	14.00 <2U
Trichloroethylene	8260B	(ug/kg)		<1.0U	<0.80U	<1U	<1U	<1U
Trichlorofluoromethane	8260B	(ug/kg)		<2.0U	<1.6U	<2U	<2U	<2U
Vinyl chloride	8260B	(ug/kg)		<2.0U	<1.6U	<2U	<2U	<2U
Xylene (total)	8260B	(ug/kg)		<6.0U	<4.8U	<6U	<6U	<6U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-014 09/02/2005	B-015 09/02/2005	B-016 09/02/2005	B-016G 08/18/2005	B-017 09/02/2005
1,1,1-trichloroethane	8260B	(ug/kg)	SAMPLE DEPTH (fbg): <2U	0.50 <2U	0.50 <2U	0.50 <2U	13.00 <2U	0.50 <2U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)		<2U	<2U	<2U	<2U	<2U
1,1,2-Trichloroethane	8260B	(ug/kg)		<2U	<2U	<2U	<2U	<2U
1,1-Dichloroethane	8260B	(ug/kg)		<2U	<2U	<2U	<2U	<2U
1,1-Dichloroethylene	8260B	(ug/kg)		<2U	<2U	<2U	<2U	<2U
1,2-Dichloroethane	8260B	(ug/kg)		<2U	<2U	<2U	<2U	<2U
1,2-Dichloropropane	8260B	(ug/kg)		<2U	<2U	<2U	<2U	<2U
2-Hexanone	8260B	(ug/kg)		<10U	<10U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)		<1U	<1U	<1U	<1U	<1U
Bromodichloromethane	8260B	(ug/kg)		<1U	<1U	<1U	<1U	<1U
Bromoform	8260B	(ug/kg)		<2U	<2U	<2U	<2U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 42 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-014 09/02/2005	B-015 09/02/2005	B-016 09/02/2005	B-016G 08/18/2005	B-017 09/02/2005
SAMPLE DEPTH (ft/kg):								
Carbon disulfide	8260B	(ug/kg)	<15U	<15U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
Chlorobenzene	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
Chloroethane	8260B	(ug/kg)	<4U	<4U	<4U	<4U	<4U	<4U
Chloroform	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
Dibromochloromethane	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
Ethylbenzene	8260B	(ug/kg)	>2U	>2U	3.6	>2U	>2U	>2U
Methyl bromide	8260B	(ug/kg)	>3U	>3U	>3U	>3U	>3U	>3U
Methyl chloride	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl tert-butyl ether	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
Methylene chloride	8260B	(ug/kg)	>30U	>30U	>30U	>30U	>30U	>30U
Styrene	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
Tetrachloroethylene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Toluene	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	>2U	>2U	>2U	>2U	>2U	>2U
Trichloroethylene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

## ANALYTICAL CHEMISTRY REPORT

Page 43 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-014 09/02/2005	B-015 09/02/2005	B-016 09/02/2005	B-016G 08/18/2005	B-017 09/02/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-018 09/02/2005	B-019 09/02/2005	B-020 09/02/2005	B-021 09/02/2005	B-022 09/02/2005
Trichlorofluoromethane	8260B	(ug/kg)	SAMPLE DEPTH (ft/g): <2U	0.50 <2U	0.50 <2U	0.50 <2U	13.00 <2U	0.50 <2U
Vinyl chloride	8260B	(ug/kg)						
Xylene (total)	8260B	(ug/kg)						
1,1,1-trichloroethane	8260B	(ug/kg)	SAMPLE DEPTH (ft/g): <2U	0.50 <1.6U	0.50 <2U	0.50 <2U	0.50 <1.7U	0.50 <1.7U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)						
1,1,2-Trichloroethane	8260B	(ug/kg)						
1,1-Dichloroethane	8260B	(ug/kg)						
1,1-Dichloroethylene	8260B	(ug/kg)						
1,2-Dichloroethane	8260B	(ug/kg)						
1,2-Dichloropropane	8260B	(ug/kg)						
2-Hexanone	8260B	(ug/kg)						
Acetone	8260B	(ug/kg)						
Benzene	8260B	(ug/kg)						
Bromodichloromethane	8260B	(ug/kg)						
Bromoform	8260B	(ug/kg)						
Carbon disulfide	8260B	(ug/kg)						
Carbon tetrachloride	8260B	(ug/kg)						

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 44 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-018 09/02/2005	B-019 09/02/2005	B-020 09/02/2005	B-021 09/02/2005	B-022 09/02/2005
SAMPLE DEPTH (ft/kg):								
Chlorobenzene	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
Chloroethane	8260B	(ug/kg)	<4U	<3.2U	<4U	<3.3U	<3.3U	<3.3U
Chloroform	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
Dibromochloromethane	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
Ethylbenzene	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
Methyl bromide	8260B	(ug/kg)	<3U	<2.4U	<3U	<2.5U	<2.5U	<2.5U
Methyl chloride	8260B	(ug/kg)	<10U	<8.1U	<10U	<8.3U	<8.3U	<8.3U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<81U	<100U	<83U	<83U	<83U
Methyl isobutyl ketone (MIBK)	8260B	(ug/kg)	<10U	<8.1U	<10U	<8.3U	<8.3U	<8.3U
Methyl tert-butyl ether	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
Methylene chloride	8260B	(ug/kg)	<30U	<24U	<30U	<25U	<25U	<25U
Styrene	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
Tetrachloroethylene	8260B	(ug/kg)	<1U	<0.81U	<1U	<0.83U	<0.83U	<0.83U
Toluene	8260B	(ug/kg)	<2U	<1.6U	<2U	1.8	<1.7U	<1.7U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
Trichloroethylene	8260B	(ug/kg)	<1U	<0.81U	<1U	<0.83U	<0.83U	<0.83U
Trichlorofluoromethane	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U
Vinyl chloride	8260B	(ug/kg)	<2U	<1.6U	<2U	<1.7U	<1.7U	<1.7U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 45 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-018	B-019	B-020	B-021	B-022
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005
Xylene (total)	8260B	(ug/kg)	SAMPLE DEPTH (ft@g)	0.50	0.50	0.50	0.50	0.50
				<6U	<4.9U	<6U	<5U	<5U
			SAMPLE LOCATION:	B-023	B-023	B-024	B-025	B-026
			SAMPLE DATE:	09/01/2005	09/01/2005	09/02/2005	09/02/2005	09/02/2005
1,1,1-trichloroethane	8260B	(ug/kg)	SAMPLE DEPTH (ft@g)	0.50	12.00	0.50	0.50	0.50
				>2.0U	>2.0U	<2U	<2U	<2U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)		>2.0U	>2.0U	<2U	<2U	<2U
1,1,2-Trichloroethane	8260B	(ug/kg)		>2.0U	>2.0U	<2U	<2U	<2U
1,1-Dichloroethane	8260B	(ug/kg)		>2.0U	>2.0U	<2U	<2U	<2U
1,1-Dichloroethylene	8260B	(ug/kg)		>2.0U	>2.0U	<2U	<2U	<2U
1,2-Dichloroethane	8260B	(ug/kg)		>2.0U	>2.0U	<2U	<2U	<2U
1,2-Dichloropropane	8260B	(ug/kg)		>2.0U	>2.0U	<2U	<2U	<2U
2-Hexanone	8260B	(ug/kg)		<10U	<10U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)		<1.0U	<1.0U	<1U	<1U	<1U
Bromodichloromethane	8260B	(ug/kg)		<1.0U	<1.0U	<1U	<1U	<1U
Bromoform	8260B	(ug/kg)		<2.0U	<2.0U	<2U	<2U	<2U
Carbon disulfide	8260B	(ug/kg)		<15U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)		2.1	>2.0U	<2U	<2U	<2U
Chlorobenzene	8260B	(ug/kg)		<2.0U	<2.0U	<2U	<2U	<2U
Chloroethane	8260B	(ug/kg)		<4.0U	<4.0U	<4U	<4U	<4U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 46 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-023 09/01/2005	B-023 09/01/2005	B-024 09/02/2005	B-025 09/02/2005	B-026 09/02/2005
SAMPLE DEPTH (ft/kg):								
Chloroform	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
Dibromochloromethane	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
Ethylbenzene	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
Methyl bromide	8260B	(ug/kg)	<3.0U	<3.0U	<3.0U	<3U	<3U	<3U
Methyl chloride	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl tert-butyl ether	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
Methylene chloride	8260B	(ug/kg)	<30U	<30U	<30U	<30U	<30U	<30U
Styrene	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
Tetrachloroethylene	8260B	(ug/kg)	<1.0U	<1.0U	<1.0U	<1U	<1U	<1U
Toluene	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
Trichloroethylene	8260B	(ug/kg)	<1.0U	<1.0U	<1.0U	<1U	<1U	<1U
Trichlorofluoromethane	8260B	(ug/kg)	4.3	<2.0U	<2.0U	<2U	<2U	<2U
Vinyl chloride	8260B	(ug/kg)	<2.0U	<2.0U	<2.0U	<2U	<2U	<2U
Xylene (total)	8260B	(ug/kg)	<6.0U	<6.0U	<6.0U	<6U	<6U	<6U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 47 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-027 09/02/2005	B-028 09/02/2005	B-029 09/02/2005	B-030 09/02/2005	B-031 09/02/2005
SAMPLE DEPTH (ft/kg):								
1,1,1-trichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,1,2-Trichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,1-Dichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,1-Dichloroethylene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,2-Dichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,2-Dichloropropane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
2-Hexanone	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Bromodichloromethane	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Bromoform	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Carbon disulfide	8260B	(ug/kg)	<15U	<15U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Chlorobenzene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Chloroethane	8260B	(ug/kg)	<4U	<4U	<4U	<4U	<4U	<4U
Chloroform	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Dibromochloromethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Ethylbenzene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 48 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-027	B-028	B-029	B-030	B-031
			SAMPLE DATE:	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005
			SAMPLE DEPTH (fbg):					
Methyl bromide	8260B	(ug/kg)	<3U	<3U	<3U	<3U	<3U	<3U
Methyl chloride	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl tert-butyl ether	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Methylene chloride	8260B	(ug/kg)	<30U	<30U	<30U	<30U	<30U	<30U
Styrene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Tetrachloroethylene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Toluene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Trichloroethylene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Trichlorofluoromethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Vinyl chloride	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Xylene (total)	8260B	(ug/kg)	<6U	<6U	<6U	<6U	<6U	<6U
			SAMPLE LOCATION:	B-032	B-033	B-034	B-035	B-036
			SAMPLE DATE:	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005
			SAMPLE DEPTH (fbg):					
1,1,1-trichloroethane	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 49 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-032 09/02/2005	B-033 09/02/2005	B-034 09/02/2005	B-035 09/02/2005	B-036 09/02/2005
SAMPLE DEPTH (ft/kg):								
1,1,2-Trichloroethane	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
1,1-Dichloroethane	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
1,1-Dichloroethylene	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
1,2-Dichloroethane	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
1,2-Dichloropropane	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
2-Hexanone	8260B	(ug/kg)	<10U	<14U	<10U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)	<100U	<140U	<100U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)	<1U	<1.4U	<1U	<1U	<1U	4.2
Bromodichloromethane	8260B	(ug/kg)	<1U	<1.4U	<1U	<1U	<1U	<1U
Bromoform	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
Carbon disulfide	8260B	(ug/kg)	<15U	<22U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
Chlorobenzene	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
Chloroethane	8260B	(ug/kg)	<4U	<5.8U	<4U	<4U	<4U	<4U
Chloroform	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
Dibromochloromethane	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
Ethylbenzene	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U
Methyl bromide	8260B	(ug/kg)	<3U	<4.3U	<3U	<3U	<3U	<3U
Methyl chloride	8260B	(ug/kg)	<10U	<14U	<10U	<10U	<10U	<10U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 50 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-032	B-033	B-034	B-035	B-036
SAMPLE DEPTH (ft@g):									
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<140U	0.50	0.50	0.50	0.50	0.50
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<14U	<10U	<10U	<10U	<100U	<100U
Methyl tert-butyl ether	8260B	(ug/kg)	>2U	<2.9U	>2U	<2U	<2U	<2U	<2U
Methylene chloride	8260B	(ug/kg)	<30U	<43U	<30U	<30U	<30U	<30U	<30U
Styrene	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U	<2U
Tetrachloroethylene	8260B	(ug/kg)	<1U	<1.4U	<1U	<1U	<1U	<1U	<1U
Toluene	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U	<2U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U	<2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U	<2U
Trichloroethylene	8260B	(ug/kg)	<1U	<1.4U	<1U	<1U	<1U	<1U	<1U
Trichlorofluoromethane	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U	<2U
Vinyl chloride	8260B	(ug/kg)	<2U	<2.9U	<2U	<2U	<2U	<2U	<2U
Xylene (total)	8260B	(ug/kg)	<6U	<8.7U	<6U	<6U	<6U	<6U	<6U
SAMPLE DEPTH (ft@g):									
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-037	B-038	B-039	B-040	B-041
1,1,1-trichloroethane	8260B	(ug/kg)	<2U	<2U	0.50	0.50	0.50	0.50	0.50
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U	<2U
1,1,2-Trichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U	<2U
1,1-Dichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 51 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-037 09/02/2005	B-038 09/02/2005	B-039 09/02/2005	B-040 09/02/2005	B-041 09/02/2005
SAMPLE DEPTH (ft/kg):								
1,1-Dichloroethylene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,2-Dichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,2-Dichloropropane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
2-Hexanone	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Bromodichloromethane	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Bromoform	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Carbon disulfide	8260B	(ug/kg)	<15U	<15U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Chlorobenzene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Chloroethane	8260B	(ug/kg)	<4U	<4U	<4U	<4U	<4U	<4U
Chloroform	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Dibromochloromethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Ethylbenzene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Methyl bromide	8260B	(ug/kg)	<3U	<3U	<3U	<3U	<3U	<3U
Methyl chloride	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 52 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-037 09/02/2005	B-038 09/02/2005	B-039 09/02/2005	B-040 09/02/2005	B-041 09/02/2005
SAMPLE DEPTH (ft/sg):								
Methyl tert-butyl ether	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Methylene chloride	8260B	(ug/kg)	<30U	<30U	<30U	<30U	<30U	<30U
Styrene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Tetrachloroethylene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	1.5	<1U
Toluene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
trans-1,2-Dichloroethylene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Trichloroethylene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Trichlorofluoromethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Vinyl chloride	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Xylene (total)	8260B	(ug/kg)	<6U	<6U	<6U	<6U	<6U	<6U
SAMPLE DEPTH (ft/sg):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-042 09/02/2005	B-043 09/02/2005	B-044 09/02/2005	B-045 09/02/2005	B-046 09/02/2005
1,1,1-trichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,1,2-Trichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,1-Dichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,1-Dichloroethylene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
1,2-Dichloroethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 53 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-042 09/02/2005	B-043 09/02/2005	B-044 09/02/2005	B-045 09/02/2005	B-046 09/02/2005
			SAMPLE DEPTH (ft@g):					
1,2-Dichloropropane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
2-Hexanone	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Acetone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Benzene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Bromodichloromethane	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U
Bromoform	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Carbon disulfide	8260B	(ug/kg)	<15U	<15U	<15U	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Chlorobenzene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Chloroethane	8260B	(ug/kg)	<4U	<4U	<4U	<4U	<4U	<4U
Chloroform	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Dibromochloromethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Ethylbenzene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Methyl bromide	8260B	(ug/kg)	<3U	<3U	<3U	<3U	<3U	<3U
Methyl chloride	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<10U	<10U	<10U	<10U	<10U
Methyl tert-butyl ether	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U
Methylene chloride	8260B	(ug/kg)	<30U	<30U	<30U	<30U	<30U	<30U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 54 of 103

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-042	B-043	B-044	B-045	B-046
SAMPLE DEPTH (fbg):									
Styrene	8260B	(ug/kg)	<2U	09/02/2005	0.50	0.50	0.50	0.50	0.50
Tetrachloroethylene	8260B	(ug/kg)	1.3	<1U	<1U	<1U	<1U	<1U	<2U
Toluene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U	<2U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U	<2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U	<2U
Trichloroethylene	8260B	(ug/kg)	<1U	<1U	<1U	<1U	<1U	<1U	<1U
Trichlorofluoromethane	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U	<2U
Vinyl chloride	8260B	(ug/kg)	<2U	<2U	<2U	<2U	<2U	<2U	<2U
Xylene (total)	8260B	(ug/kg)	<6U	<6U	<6U	<6U	<6U	<6U	<6U
SAMPLE DEPTH (fbg):									
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-047	B-048	B-049	B-050	B-051
1,1,1-trichloroethane	8260B	(ug/kg)	<2.8U	09/02/2005	0.50	0.50	0.50	0.50	0.50
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U
1,1,2-Trichloroethane	8260B	(ug/kg)	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U
1,1-Dichloroethane	8260B	(ug/kg)	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U
1,1-Dichloroethylene	8260B	(ug/kg)	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U
1,2-Dichloroethane	8260B	(ug/kg)	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U
1,2-Dichloropropane	8260B	(ug/kg)	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U	<2.8U
2-Hexanone	8260B	(ug/kg)	<14U	<14U	<14U	<14U	<14U	<14U	<14U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.

React Environmental  
Professional Services Group, Inc.

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-047	B-048
			SAMPLE DATE:	09/02/2005	09/02/2005
			SAMPLE DEPTH (ft@e)		
				0.50	0.50
Acetone	8260B	(ug/kg)	<140U	<100U	
Benzene	8260B	(ug/kg)	<1.4U	<1U	
Bromodichloromethane	8260B	(ug/kg)	<1.4U	<1U	
Bromoform	8260B	(ug/kg)	<2.8U	<2U	
Carbon disulfide	8260B	(ug/kg)	<21U	<15U	
Carbon tetrachloride	8260B	(ug/kg)	<2.8U	<2U	
Chlorobenzene	8260B	(ug/kg)	<2.8U	<2U	
Chloroethane	8260B	(ug/kg)	<5.7U	<4U	
Chloroform	8260B	(ug/kg)	<2.8U	<2U	
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2.8U	<2U	
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2.8U	<2U	
Dibromochloromethane	8260B	(ug/kg)	<2.8U	<2U	
Ethylbenzene	8260B	(ug/kg)	<2.8U	<2U	
Methyl bromide	8260B	(ug/kg)	<4.3U	<3U	
Methyl ethyl ketone	8260B	(ug/kg)	<140U	<100U	
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<14U	<10U	
Methyl tert-butyl ether	8260B	(ug/kg)	<2.8U	<2U	
Methylene chloride	8260B	(ug/kg)	<43U	<30U	
Styrene	8260B	(ug/kg)	<2.8U	<2U	
Tetrachloroethylene	8260B	(ug/kg)	<1.4U	<1U	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 56 of 103

**EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-047	B-048
			SAMPLE DATE:	09/02/2005	09/02/2005
			SAMPLE DEPTH (ft@g):		
Toluene	8260B	(ug/kg)	<2.8U	<2.8U	<2U
trans-1,2-Di-chloroethylene	8260B	(ug/kg)	<2.8U	<2.8U	<2U
trans-1,3-Dichloropropene	8260B	(ug/kg)	<2.8U	<2.8U	<2U
Trichloroethylene	8260B	(ug/kg)	<1.4U	<1U	<1U
Trichlorofluoromethane	8260B	(ug/kg)	<2.8U	<2U	<2U
Vinyl chloride	8260B	(ug/kg)	<2.8U	<2U	<2U
Xylene (total)	8260B	(ug/kg)	<8.5U	<6U	<6U

**EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-001	B-002	B-002G	B-003
			SAMPLE DATE:	09/01/2005	09/02/2005	08/18/2005	09/01/2005
			SAMPLE DEPTH (ft@g):				
1,2,4-Trichlorobenzene	8270D	(ug/kg)	0.50	12.00	0.50	19.00	0.50
2,4,5-Trichlorophenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
2,4,6-Trichlorophenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
2,4-Dichlorophenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
2,4-Dimethylphenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
2,4-Dinitrophenol	8270D	(ug/kg)	<2500UD	<500U	<2500UD	<500U	<500U
2,4-Dinitrotoluene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
2,6-Dinitrotoluene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 57 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-001 09/01/2005	B-001 09/01/2005	B-002 09/02/2005	B-002G 08/18/2005	B-003 09/01/2005
SAMPLE DEPTH (ft@e)								
2-Chloronaphthalene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U
2-Chlorophenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U
2-Methylnaphthalene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U
3,3-Dichlorobenzidine	8270D	(ug/kg)	>2500UD	<500U	>2500UD	<500U	<500U	<500U
4,6-Dinitro-o-cresol	8270D	(ug/kg)	>2500UD	<500U	>2500UD	<500U	<500U	<500U
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U
Acenaphthene	8270D	(ug/kg)	740D	<100U	550D	<100U	550	650
Acenaphthylene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	200
Aniline	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U
Anthracene	8270D	(ug/kg)	2000D	<100U	1400D	<100U	1400	1400
Benz(a)anthracene	8270D	(ug/kg)	5700D	<100U	4700D	<100U	3000	3000
Benz(a)pyrene	8270D	(ug/kg)	6500D	<100U	4400D	<100U	2600	2600
Benz(b)fluoranthene	8270D	(ug/kg)	6000D	<100U	5800D	<100U	3500	3500
Benz(ghi)perylene	8270D	(ug/kg)	3200D	<100U	2300D	<100U	1300	1300
Benz(k)fluoranthene	8270D	(ug/kg)	4800D	<100U	2100D	<100U	1000	1000
Benzoic acid	8270D	(ug/kg)	>2500UD	<500U	>2500UD	<500U	<500U	<500U
Benzyl alcohol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U
Bis(2-chloroethyl)ether	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 58 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-001 09/01/2005	B-002 09/02/2005	B-002G 08/18/2005	B-003 09/01/2005
			SAMPLE DEPTH (ft@e)				
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)	<1600UD	<330U	<1600UD	<330U	<330U
Butylbenzylphthalate	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Chrysene	8270D	(ug/kg)	5900D	<100U	4100D	<100U	2900
Dibenzo(a,h)anthracene	8270D	(ug/kg)	780D	<100U	<500UD	<100U	440
Dibenzofuran	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	430
Diethyl phthalate	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Dimethyl phthalate	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Di-n-butyl phthalate	8270D	(ug/kg)	<1600UD	<330U	<1600UD	<330U	<330U
Di-n-octyl phthalate	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Diphenylamine	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Fluoranthene	8270D	(ug/kg)	11000D	<100U	9600D	<100U	5300
Fluorene	8270D	(ug/kg)	720D	<100U	560D	<100U	740
Hexachlorobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Hexachlorobutadiene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Hexachlorocyclopentadiene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Hexachloroethane	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Indeno[1,2,3-c]dipyrone	8270D	(ug/kg)	3300D	<100U	2100D	<100U	1400
Isophorone	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
m-Cresol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
m-Dichlorobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
m-Nitroaniline	8270D	(ug/kg)	>2500UD	<500U	>2500UD	<500U	<500U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 59 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-001	B-002	B-002G	B-003
			SAMPLE DATE:	09/01/2005	09/02/2005	08/18/2005	09/01/2005
SAMPLE DEPTH (ft@g):							
Naphthalene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	340
Nitrobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
N-Nitrosodipropylamine	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
o-Cresol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
o-Dichlorobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
o-Nitroaniline	8270D	(ug/kg)	>2500UD	<500U	<2500UD	<500U	<500U
o-Nitrophenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
p-Chloroaniline	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
p-Chloro-m-cresol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
PCP	8270D	(ug/kg)	>2500UD	<500U	<2500UD	<500U	<500U
p-Dichlorobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
Phenanthrene	8270D	(ug/kg)	5900D	<100U	5000D	<100U	4400
Phenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<100U
p-Nitroaniline	8270D	(ug/kg)	>2500UD	<500U	>2500UD	<500U	<500U
p-Nitrophenol	8270D	(ug/kg)	>2500UD	>500U	>2500UD	<500U	<500U
Pyrene	8270D	(ug/kg)	8700D	<100U	7800D	<100U	4000
SAMPLE DEPTH (ft@g):							
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-003	B-003G	B-004	B-005
			SAMPLE DATE:	09/01/2005	08/18/2005	09/01/2005	09/02/2005
1,2,4-Trichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 60 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-003 09/01/2005	B-003G 08/18/2005	B-004 09/01/2005	B-004 09/01/2005	B-005 09/02/2005
SAMPLE DEPTH (ft@e)								
2,4,5-Trichlorophenol	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<2500UD
2,4,6-Trichlorophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
2,4-Dichlorophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
2,4-Dimethylphenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
2,4-Dinitrophenol	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<2500UD
2,4-Dinitrotoluene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
2,6-Dinitrotoluene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
2-Chloronaphthalene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
2-Chlorophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
2-Methylnaphthalene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
3,3-Dichlorobenzidine	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<2500UD
4,6-Dinitro-o-cresol	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<2500UD
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Acenaphthene	8270D	(ug/kg)	<100U	<100U	<100U	720	<100U	1000D
Acenaphthylene	8270D	(ug/kg)	<100U	<100U	330	<100U	<100U	560D
Aniline	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Anthracene	8270D	(ug/kg)	<100U	<100U	1700	<100U	<100U	3000D
Benzo(a)anthracene	8270D	(ug/kg)	<100U	<100U	3400	<100U	<100U	8600D
Benzo(a)pyrene	8270D	(ug/kg)	<100U	<100U	2800	<100U	<100U	8300D
Benzo(b)fluoranthene	8270D	(ug/kg)	<100U	<100U	3400	<100U	<100U	9900D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 61 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-003 09/01/2005	B-003G 08/18/2005	B-004 09/01/2005	B-004 09/01/2005	B-005 09/02/2005
SAMPLE DEPTH (ft@e)								
Benzo(ghi)perylene	8270D	(ug/kg)	<100U	<100U	1400	<100U	<100U	4300D
Benzo(k)fluoranthene	8270D	(ug/kg)	<100U	<100U	1400	<100U	<100U	4100D
Benzoic acid	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<2500UD
Benzyl alcohol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Bis(2-chloroethyl)ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)	<330U	<330U	<330U	<330U	<330U	<1600UD
Butylbenzylphthalate	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Chrysene	8270D	(ug/kg)	<100U	<100U	3100	<100U	<100U	8000D
Dibenzo(a,h)anthracene	8270D	(ug/kg)	<100U	<100U	450	<100U	<100U	1100D
Dibenzofuran	8270D	(ug/kg)	<100U	<100U	540	<100U	<100U	610D
Diethyl phthalate	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Dimethyl phthalate	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Di-n-butyl phthalate	8270D	(ug/kg)	<330U	<330U	<330U	<330U	<330U	<1600UD
Di-n-octyl phthalate	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Diphenylamine	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Fluoranthene	8270D	(ug/kg)	<100U	<100U	8400D	<100U	<100U	16000D
Fluorene	8270D	(ug/kg)	<100U	<100U	940	<100U	<100U	1200D
Hexachlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Hexachlorobutadiene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 62 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-003 09/01/2005	B-003G 08/18/2005	B-004 09/01/2005	B-004 09/01/2005	B-005 09/02/2005
SAMPLE DEPTH (ft@e)								
Hexachlorocyclopentadiene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Hexachloroethane	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	<100U	<100U	<100U	1600	<100U	4500D
Isophorone	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
m-Cresol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
m-Dichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
m-Nitroaniline	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<2500UD
Naphthalene	8270D	(ug/kg)	<100U	<100U	<100U	500	<100U	520D
Nitrobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
N-Nitrosodipropylamine	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
o-Cresol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
o-Dichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
o-Nitroaniline	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<2500UD
o-Nitrophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
p-Chloroaniline	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
p-Chloro-m-cresol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
PCP	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<2500UD
p-Dichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
Phenanthrene	8270D	(ug/kg)	<100U	<100U	5500	<100U	<100U	9900D
Phenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<500UD
p-Nitroaniline	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<2500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 63 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-003	B-003G	B-004	B-004	B-005
			SAMPLE DEPTH (ft@g):		08/18/2005	09/01/2005	09/01/2005	09/01/2005	09/02/2005
p-Nitrophenol	8270D	(ug/kg)		<500U	<500U	<500U	<500U	<500U	<2500UD
Pyrene	8270D	(ug/kg)		<100U	<100U	4400	<100U	<100U	13000D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-005G	B-006	B-006	B-006G	B-007
			SAMPLE DEPTH (ft@g):		08/18/2005	09/01/2005	09/01/2005	08/18/2005	09/02/2005
1,2,4-Trichlorobenzene	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
2,4,5-Trichlorophenol	8270D	(ug/kg)		<500U	>2500UD	<500U	<500U	<500U	<5000UD
2,4,6-Trichlorophenol	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
2,4-Dichlorophenol	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
2,4-Dimethylphenol	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
2,4-Dinitrophenol	8270D	(ug/kg)		<500U	>2500UD	<500U	<500U	<500U	<5000UD
2,4-Dinitrotoluene	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
2,6-Dinitrotoluene	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
2-Chloronaphthalene	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
2-Chlorophenol	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
2-Methylnaphthalene	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
3,3-Dichlorobenzidine	8270D	(ug/kg)		<500U	>2500UD	<500U	<500U	<500U	<5000UD
4,6-Dinitro-o-cresol	8270D	(ug/kg)		<500U	>2500UD	<500U	<500U	<500U	<5000UD
4-Bromophenyl phenyl ether	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD
4-Chlorophenyl phenyl ether	8270D	(ug/kg)		<100U	<500UD	<100U	<100U	<100U	<1000UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 64 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-005G 08/18/2005	B-006 09/01/2005	B-006 09/01/2005	B-006G 08/18/2005	B-007 09/02/2005
SAMPLE DEPTH (ft@e)								
Acenaphthene	8270D	(ug/kg)	<100U	1400D	<100U	<100U	<100U	1300D
Acenaphthylene	8270D	(ug/kg)	<100U	2000D	<100U	<100U	<1000UD	
Aniline	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<1000UD	
Anthracene	8270D	(ug/kg)	<100U	4500D	<100U	<100U	<1000UD	2900D
Benzo(a)anthracene	8270D	(ug/kg)	<100U	8700D	<100U	<100U	<1000UD	9000D
Benzo(a)pyrene	8270D	(ug/kg)	<100U	9500D	<100U	<100U	<1000UD	8100D
Benzo(b)fluoranthene	8270D	(ug/kg)	<100U	9700D	<100U	<100U	<1000UD	10000D
Benzo(ghi)perylene	8270D	(ug/kg)	<100U	3800D	<100U	<100U	<1000UD	4300D
Benzo(k)fluoranthene	8270D	(ug/kg)	<100U	6100D	<100U	<100U	<1000UD	3800D
Benzoic acid	8270D	(ug/kg)	<500U	<2500UD	<500U	<500U	<5000UD	
Benzyl alcohol	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<1000UD	
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<1000UD	
Bis(2-chloroethyl)ether	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<1000UD	
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<1000UD	
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<1000UD	
Butylbenzylphthalate	8270D	(ug/kg)	<100U	7800D	<330U	<330U	<3300UD	
Chrysene	8270D	(ug/kg)	<100U	11000D	<100U	<100U	<1000UD	7900D
Dibenz(a,h)anthracene	8270D	(ug/kg)	<100U	1000D	<100U	<100U	<1000UD	1200D
Dibenzofuran	8270D	(ug/kg)	<100U	980D	<100U	<100U	<1000UD	
Diethyl phthalate	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<1000UD	
Dimethyl phthalate	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<1000UD	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 65 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-005G 08/18/2005	B-006 09/01/2005	B-006 09/01/2005	B-006G 08/18/2005	B-007 09/02/2005
SAMPLE DEPTH (ft@e)								
Di-n-butyl phthalate	8270D	(ug/kg)	<330U	<1600UD	<330U	<330U	<330U	<330UD
Di-n-octyl phthalate	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
Diphenylamine	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
Fluoranthene	8270D	(ug/kg)	<100U	25000D	120	<100U	<100U	19000D
Fluorene	8270D	(ug/kg)	<100U	1900D	<100U	<100U	<100U	1300D
Hexachlorobenzene	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
Hexachlorobutadiene	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
Hexachlorocyclopentadiene	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
Hexachloroethane	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	<100U	4300D	<100U	<100U	<100U	4200D
Isophorone	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
m-Cresol	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
m-Dichlorobenzene	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
m-Nitroaniline	8270D	(ug/kg)	<500U	>2500UD	<500U	<500U	<500U	<5000UD
Naphthalene	8270D	(ug/kg)	<100U	780D	<100U	<100U	<100U	<1000UD
Nitrobenzene	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
N-Nitrosodipropylamine	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
o-Cresol	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
o-Dichlorobenzene	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD
o-Nitroaniline	8270D	(ug/kg)	<500U	>2500UD	<500U	<500U	<500U	<5000UD
o-Nitrophenol	8270D	(ug/kg)	<100U	<500UD	<100U	<100U	<100U	<1000UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 66 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-005G	SAMPLE DATE:	08/18/2005	B-006	B-006G	B-007	B-007
SAMPLE DEPTH (fb/g)										
p-Chloroaniline	8270D	(ug/kg)	<100U	<500UD			8.00	18.00		0.50
p-Chloro-m-cresol	8270D	(ug/kg)	<100U	<500UD			<100U	<100U		<1000UD
PCP	8270D	(ug/kg)	<500U	>2500UD			<500U	<500U		<1000UD
p-Dichlorobenzene	8270D	(ug/kg)	<100U	<500UD			<100U	<100U		<1000UD
Phenanthrene	8270D	(ug/kg)	<100U	14000D			<100U	<100U		11000D
Phenol	8270D	(ug/kg)	<100U	<500UD			<100U	<100U		<1000UD
p-Nitroaniline	8270D	(ug/kg)	<500U	>2500UD			<500U	<500U		<5000UD
p-Nitrophenol	8270D	(ug/kg)	<500U	>2500UD			<500U	<500U		<5000UD
Pyrene	8270D	(ug/kg)	<100U	13000D			<100U	<100U		15000D
SAMPLE DEPTH (fb/g)										
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-008	SAMPLE DATE:	09/01/2005	B-008	B-009	B-009G	B-010
1,2,4-Trichlorobenzene	8270D	(ug/kg)	<100U	0.50			12.00	0.50	11.50	0.50
2,4,5-Trichlorophenol	8270D	(ug/kg)	<500U	>500U			<100U	<100U	<100U	<100U
2,4,6-Trichlorophenol	8270D	(ug/kg)	<100U	<100U			<100U	<100U	<100U	<500U
2,4-Dichlorophenol	8270D	(ug/kg)	<100U	<100U			<100U	<100U	<100U	<100U
2,4-Dimethylphenol	8270D	(ug/kg)	<100U	<100U			<100U	<100U	<100U	<100U
2,4-Dinitrophenol	8270D	(ug/kg)	<500U	>500U			<500U	<500U	<500U	<500U
2,4-Dinitrotoluene	8270D	(ug/kg)	<100U	<100U			<100U	<100U	<100U	<100U
2,6-Dinitrotoluene	8270D	(ug/kg)	<100U	<100U			<100U	<100U	<100U	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 67 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-008 09/01/2005	B-008 09/01/2005	B-009 09/01/2005	B-009G 08/18/2005	B-010 09/01/2005
			SAMPLE DEPTH (ft@e)					
2-Chloronaphthalene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
2-Chlorophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
2-Methylnaphthalene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
3,3-Dichlorobenzidine	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
4,6-Dinitro-o-cresol	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Acenaphthene	8270D	(ug/kg)	140	<100U	220	<100U	<100U	440
Acenaphthylene	8270D	(ug/kg)	150	<100U	350	<100U	<100U	290
Aniline	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Anthracene	8270D	(ug/kg)	350	<100U	720	140	1200	
Benzo(a)anthracene	8270D	(ug/kg)	1200	<100U	1700	450	3300	
Benzo(a)pyrene	8270D	(ug/kg)	1100	<100U	1700	440	2900	
Benzo(b)fluoranthene	8270D	(ug/kg)	1500	<100U	1900	570	4000	
Benzo(ghi)perylene	8270D	(ug/kg)	630	<100U	670	280	1600	
Benzo(k)fluoranthene	8270D	(ug/kg)	500	<100U	1100	180	1100	
Benzic acid	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
Benzyl alcohol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 68 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-008 09/01/2005	B-008 09/01/2005	B-009 09/01/2005	B-009G 08/18/2005	B-010 09/01/2005
SAMPLE DEPTH (ft/kg):								
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)		0.50	12.00	0.50	11.50	0.50
Butylbenzylphthalate	8270D	(ug/kg)		570	<330U	<330U	<330U	<330U
Chrysene	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Dibenzo(a,h)anthracene	8270D	(ug/kg)		1200	<100U	1800	440	3000
Dibenzofuran	8270D	(ug/kg)		190	<100U	170	130	500
Diethyl phthalate	8270D	(ug/kg)		<100U	<100U	140	<100U	260
Dimethyl phthalate	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Di-n-butyl phthalate	8270D	(ug/kg)		<330U	<330U	<330U	<330U	<330U
Di-n-octyl phthalate	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Diphenylamine	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Fluoranthene	8270D	(ug/kg)		2500	<100U	4400	940	8700D
Fluorene	8270D	(ug/kg)		150	<100U	280	<100U	520
Hexachlorobenzene	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Hexachlorobutadiene	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Hexachlorocyclopentadiene	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Hexachloroethane	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
Indeno[1,2,3-c]pyrene	8270D	(ug/kg)		670	<100U	770	260	1700
Isophorone	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
m-Cresol	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
m-Dichlorobenzene	8270D	(ug/kg)		<100U	<100U	<100U	<100U	<100U
m-Nitroaniline	8270D	(ug/kg)		<500U	<500U	<500U	<500U	<500U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 69 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-008 09/01/2005	B-008 09/01/2005	B-009 09/01/2005	B-009G 08/18/2005	B-010 09/01/2005
SAMPLE DEPTH (ft@g):								
Naphthalene	8270D	(ug/kg)	<100U	<100U	<100	<100U	<100U	170
Nitrobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
N-Nitrosodipropylamine	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
o-Cresol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
o-Dichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
o-Nitroaniline	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
o-Nitrophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
p-Chloroaniline	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
p-Chloro-m-cresol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
PCP	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
p-Dichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Phenanthrene	8270D	(ug/kg)	1900	<100U	2200	600	3700	
Phenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
p-Nitroaniline	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
p-Nitrophenol	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
Pyrene	8270D	(ug/kg)	1900	<100U	2400	800	4300	
SAMPLE DEPTH (ft@g):								
1,2,4-Trichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 70 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-010 09/01/2005	B-010G 08/18/2005	B-011 09/01/2005	B-011 09/01/2005	B-011G 08/18/2005
SAMPLE DEPTH (ft@e)								
2,4,5-Trichlorophenol	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
2,4,6-Trichlorophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
2,4-Dichlorophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
2,4-Dimethylphenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
2,4-Dinitrophenol	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
2,4-Dinitrotoluene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
2,6-Dinitrotoluene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
2-Chloronaphthalene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
2-Chlorophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
2-Methylnaphthalene	8270D	(ug/kg)	<100U	<100U	150	<100U	<100U	<100U
3,3-Dichlorobenzidine	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
4,6-Dinitro-o-cresol	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Acenaphthene	8270D	(ug/kg)	<100U	340	550	<100U	<100U	<100U
Acenaphthylene	8270D	(ug/kg)	<100U	<100U	290	<100U	<100U	<100U
Aniline	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Anthracene	8270D	(ug/kg)	<100U	590	1500	<100U	<100U	<100U
Benz(a)anthracene	8270D	(ug/kg)	<100U	1400	3700	<100U	<100U	<100U
Benz(a)pyrene	8270D	(ug/kg)	<100U	1100	3500	<100U	120	<100U
Benz(b)fluoranthene	8270D	(ug/kg)	<100U	1700	3900	<100U	<100U	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 71 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-010 09/01/2005	B-010G 08/18/2005	B-011 09/01/2005	B-011 09/01/2005	B-011G 08/18/2005
SAMPLE DEPTH (ft@e)								
Benzo(ghi)perylene	8270D	(ug/kg)	<100U	660	1400	<100U	<100U	<100U
Benzo(k)fluoranthene	8270D	(ug/kg)	<100U	490	2200	<100U	<100U	<100U
Benzoic acid	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
Benzyl alcohol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Bis(2-chloroethyl)ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)	<330U	<330U	<330U	<330U	<330U	<330U
Butylbenzylphthalate	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Chrysene	8270D	(ug/kg)	<100U	1400	3800	<100U	<100U	<100U
Dibenzo(a,h)anthracene	8270D	(ug/kg)	<100U	220	310	<100U	<100U	<100U
Dibenzofuran	8270D	(ug/kg)	<100U	280	250	<100U	<100U	<100U
Diethyl phthalate	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Dimethyl phthalate	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Di-n-butyl phthalate	8270D	(ug/kg)	<330U	<330U	<330U	<330U	<330U	<330U
Di-n-octyl phthalate	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Diphenylamine	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Fluoranthene	8270D	(ug/kg)	<100U	4100	11000D	<100U	<100U	<100U
Fluorene	8270D	(ug/kg)	<100U	420	530	<100U	<100U	<100U
Hexachlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Hexachlorobutadiene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 72 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-010 09/01/2005	B-010G 08/18/2005	B-011 09/01/2005	B-011 09/01/2005	B-011G 08/18/2005
SAMPLE DEPTH (ft@e)								
Hexachlorocyclopentadiene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Hexachloroethane	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	<100U	580	1600	<100U	<100U	110
Isophorone	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
m-Cresol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
m-Dichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
m-Nitroaniline	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
Naphthalene	8270D	(ug/kg)	<100U	300	190	<100U	<100U	<100U
Nitrobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
N-Nitrosodipropylamine	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
o-Cresol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
o-Dichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
o-Nitroaniline	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
o-Nitrophenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
p-Chloroaniline	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
p-Chloro-m-cresol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
PCP	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U
p-Dichlorobenzene	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
Phenanthrene	8270D	(ug/kg)	<100U	3900	4300	<100U	<100U	<100U
Phenol	8270D	(ug/kg)	<100U	<100U	<100U	<100U	<100U	<100U
p-Nitroaniline	8270D	(ug/kg)	<500U	<500U	<500U	<500U	<500U	<500U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 73 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-010	B-010G	B-011	B-011G
			SAMPLE DEPTH (ft@g):		08/18/2005	09/01/2005	09/01/2005	08/18/2005
p-Nitrophenol	8270D	(ug/kg)	<500U	<500U	8.50	0.50	12.00	13.00
Pyrene	8270D	(ug/kg)	<100U	<100U	3500	4700	<100U	<500U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-012	B-012G	B-013	B-013G
			SAMPLE DEPTH (ft@g):		09/01/2005	08/18/2005	09/02/2005	08/18/2005
1,2,4-Trichlorobenzene	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
2,4,5-Trichlorophenol	8270D	(ug/kg)	<500U	<5000UD	<500U	<500U	<2500UD	<500U
2,4,6-Trichlorophenol	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
2,4-Dichlorophenol	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
2,4-Dimethylphenol	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
2,4-Dinitrophenol	8270D	(ug/kg)	<500U	<5000UD	<500U	<500U	<2500UD	<500U
2,4-Dinitrotoluene	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
2,6-Dinitrotoluene	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
2-Chloronaphthalene	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
2-Chlorophenol	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
2-Methylnaphthalene	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
3,3-Dichlorobenzidine	8270D	(ug/kg)	<500U	<5000UD	<500U	<500U	<2500UD	<500U
4,6-Dinitro-o-cresol	8270D	(ug/kg)	<500U	<5000UD	<500U	<500U	<2500UD	<500U
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<100U	<1000UD	<100U	<100U	<500UD	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 74 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-012 09/01/2005	B-012 09/01/2005	B-012G 08/18/2005	B-013 09/02/2005	B-013G 08/18/2005
SAMPLE DEPTH (ft@e)								
Acenaphthene	8270D	(ug/kg)		0.50	12.00	13.00	0.50	14.00
Acenaphthylene	8270D	(ug/kg)		210	<1000UD	<100U	520D	<100U
Aniline	8270D	(ug/kg)		170	<1000UD	<100U	<500UD	<100U
Anthracene	8270D	(ug/kg)		<100U	<1000UD	<100U	<500UD	<100U
Benzo(a)anthracene	8270D	(ug/kg)		580	<1000UD	<100U	1200D	<100U
Benzo(a)pyrene	8270D	(ug/kg)		1900	<1000UD	<100U	3000D	<100U
Benzo(b)fluoranthene	8270D	(ug/kg)		1900	<1000UD	<100U	2500D	<100U
Benzo(ghi)perylene	8270D	(ug/kg)		2500	<1000UD	<100U	3300D	<100U
Benzo(k)fluoranthene	8270D	(ug/kg)		1000	<1000UD	<100U	1300D	<100U
Benzoic acid	8270D	(ug/kg)		890	<1000UD	<100U	1100D	<100U
Benzyl alcohol	8270D	(ug/kg)		<500U	<5000UD	<500U	<2500UD	<500U
Bis(2-chloroethoxy)methane	8270D	(ug/kg)		<100U	<1000UD	<100U	<500UD	<100U
Bis(2-chloroethyl)ether	8270D	(ug/kg)		<100U	<1000UD	<100U	<500UD	<100U
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)		<100U	<1000UD	<100U	<500UD	<100U
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)		<330U	<3300UD	<330U	<1600UD	<330U
Butylbenzylphthalate	8270D	(ug/kg)		<100U	<1000UD	<100U	730D	<100U
Chrysene	8270D	(ug/kg)		2100	<1000UD	<100U	2700D	<100U
Dibenz(a,h)anthracene	8270D	(ug/kg)		330	<1000UD	<100U	<500UD	<100U
Dibenzofuran	8270D	(ug/kg)		110	<1000UD	<100U	<500UD	<100U
Diethyl phthalate	8270D	(ug/kg)		<100U	<1000UD	<100U	<500UD	<100U
Dimethyl phthalate	8270D	(ug/kg)		<100U	<1000UD	<100U	<500UD	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 75 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-012 09/01/2005	B-012 09/01/2005	B-012G 08/18/2005	B-013 09/02/2005	B-013G 08/18/2005
		SAMPLE DEPTH (ft@e)						
Di-n-butyl phthalate	8270D	(ug/kg)	<330U	<3300UD	<330U	<1600UD	<330U	<330U
Di-n-octyl phthalate	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
Diphenylamine	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
Fluoranthene	8270D	(ug/kg)	3600	<1000UD	<100U	6400D	<100U	<100U
Fluorene	8270D	(ug/kg)	220	<1000UD	<100U	600D	<100U	<100U
Hexachlorobenzene	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
Hexachlorobutadiene	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
Hexachlorocyclopentadiene	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
Hexachloroethane	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	1100	<1000UD	<100U	1200D	<100U	<100U
Isophorone	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
m-Cresol	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
m-Dichlorobenzene	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
m-Nitroaniline	8270D	(ug/kg)	<500U	<5000UD	<500U	<2500UD	<500U	<500U
Naphthalene	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
Nitrobenzene	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
N-Nitrosodipropylamine	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
o-Cresol	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
o-Dichlorobenzene	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U
o-Nitroaniline	8270D	(ug/kg)	<500U	<5000UD	<500U	<2500UD	<500U	<500U
o-Nitrophenol	8270D	(ug/kg)	<100U	<1000UD	<100U	<500UD	<100U	<100U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental Professional Services Group, Inc.

ANALYTICAL CHEMISTRY REPORT

EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatograph/Mass Spectrometry (GC/MS)

CONSTITUENT		METHOD	UNITS	SAMPLE LOCATION:	B-012	B-012	B-012G	B-013
				SAMPLE DATE:	09/01/2005	09/01/2005	08/18/2005	08/18/2005
p-Chloroaniline	8270D	(ug/kg)		SAMPLE DEPTH (fbs):	0.50	12.00	13.00	0.50
				<100U	<1000UD	<100U	<500UD	<100U
p-Chloro-m-cresol	8270D	(ug/kg)			<100U	<1000UD	<100U	<100U
PCP	8270D	(ug/kg)			<500U	<5000UD	<2500UD	<500U
p-Dichlorobenzene	8270D	(ug/kg)			<100U	<1000UD	<500UD	<100U
Phenanthrene	8270D	(ug/kg)			2300	<1000UD	4500D	<100U
Phenol	8270D	(ug/kg)			<100U	<1000UD	<500UD	<100U
p-Nitroaniline	8270D	(ug/kg)			<500U	<5000UD	<2500UD	<500U
p-Nitrophenol	8270D	(ug/kg)			<500U	<5000UD	<2500UD	<500U
Pyrene	8270D	(ug/kg)			2800	<1000UD	5100D	<100U
CONSTITUENT		METHOD	UNITS	SAMPLE LOCATION:	B-014	B-015	B-016	B-017
				SAMPLE DATE:	09/02/2005	09/02/2005	08/18/2005	09/02/2005
1,1,2,4-Trichlorobenzene	8270D	(ug/kg)		SAMPLE DEPTH (fbs):	0.50	0.50	13.00	0.50
2,4,5-Trichlorophenol	8270D	(ug/kg)			<1000UD	<500UD	<100U	<500UD
2,4,6-Trichlorophenol	8270D	(ug/kg)			<5000UD	<2500UD	<500U	<2500UD
2,4-Dichlorophenol	8270D	(ug/kg)			<1000UD	<500UD	<100U	<500UD
2,4-Dimethylphenol	8270D	(ug/kg)			<1000UD	<500UD	<100U	<500UD
2,4-Dinitrophenol	8270D	(ug/kg)			<5000UD	<2500UD	<500U	<2500UD
2,4-Dinitrotoluene	8270D	(ug/kg)			<1000UD	<500UD	<100U	<500UD
2,6-Dinitrotoluene	8270D	(ug/kg)			<1000UD	<500UD	<100U	<500UD

**DUALIFIERS:** U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank.  $\Sigma$  - Tentatively Identified Compound (TIC). T- Tentatively Identified Compound (TIC) also identified in Method Blank.  $\# - \text{MDL}$  exceeds the reporting standard. E = Reported result over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 77 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-014 09/02/2005	B-015 09/02/2005	B-016 09/02/2005	B-016G 08/18/2005	B-017 09/02/2005
SAMPLE DEPTH (ft@e)								
2-Chloronaphthalene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<1000UD	<100U	<500UD
2-Chlorophenol	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<1000UD	<100U	<500UD
2-Methylnaphthalene	8270D	(ug/kg)	<1000UD	550D	<1000UD	<1000UD	<100U	<500UD
3,3-Dichlorobenzidine	8270D	(ug/kg)	<5000UD	>2500UD	<5000UD	<5000UD	<500U	<2500UD
4,6-Dinitro-o-cresol	8270D	(ug/kg)	<5000UD	>2500UD	<5000UD	<5000UD	<500U	<2500UD
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<1000UD	<100U	<500UD
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<1000UD	<100U	<500UD
Acenaphthene	8270D	(ug/kg)	1800D	1700D	1500D	<1000UD	<100U	870D
Acenaphthylene	8270D	(ug/kg)	<1000UD	890D	<1000UD	<1000UD	<100U	<500UD
Aniline	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<1000UD	<100U	<500UD
Anthracene	8270D	(ug/kg)	4500D	6500D	4700D	<1000UD	<100U	2400D
Benzo(a)anthracene	8270D	(ug/kg)	13000D	15000D	16000D	<1000UD	<100U	8000D
Benzo(a)pyrene	8270D	(ug/kg)	13000D	11000D	16000D	120	8200D	
Benzo(b)fluoranthene	8270D	(ug/kg)	15000D	16000D	19000D	130	10000D	
Benzo(ghi)perylene	8270D	(ug/kg)	7800D	5400D	8600D	<100U	4500D	
Benzo(k)fluoranthene	8270D	(ug/kg)	6300D	5000D	8300D	<100U	3500D	
Benzic acid	8270D	(ug/kg)	<5000UD	>2500UD	<5000UD	<500U	<2500UD	
Benzyl alcohol	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<500UD	
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<500UD	
Bis(2-chloroethyl)ether	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<500UD	
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<500UD	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 78 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-014 09/02/2005	B-015 09/02/2005	B-016 09/02/2005	B-016G 08/18/2005	B-017 09/02/2005
			SAMPLE DEPTH (ft@g):					
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)	<3300UD	<1600UD	<3300UD	<1600UD	<330U	<1600UD
Butylbenzylphthalate	8270D	(ug/kg)	<1000UD	970D	<1000UD	<100U	<100U	<500UD
Chrysene	8270D	(ug/kg)	13000D	13000D	15000D	<100U	<100U	7800D
Dibenz(a,h)anthracene	8270D	(ug/kg)	2100D	<500UD	2300D	<100U	<100U	1200D
Dibenzofuran	8270D	(ug/kg)	<1000UD	1600D	<1000UD	<100U	<100U	<500UD
Diethyl phthalate	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
Dimethyl phthalate	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
Di-n-butyl phthalate	8270D	(ug/kg)	<3300UD	<1600UD	<3300UD	<330U	<330U	<1600UD
Di-n-octyl phthalate	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
Diphenylamine	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
Fluoranthene	8270D	(ug/kg)	25000D	38000D	31000D	<100	<100	13000D
Fluorene	8270D	(ug/kg)	1900D	3400D	1600D	<100U	<100U	870D
Hexachlorobenzene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
Hexachlorobutadiene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
Hexachlorocyclopentadiene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
Hexachloroethane	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
Indeno[1,2,3-c]diphyrene	8270D	(ug/kg)	8100D	5500D	9100D	<100U	<100U	4600D
Isophorone	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
m-Cresol	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
m-Dichlorobenzene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
m-Nitroaniline	8270D	(ug/kg)	<5000UD	>2500UD	<5000UD	<500U	<500U	<2500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 79 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-014 09/02/2005	B-015 09/02/2005	B-016 09/02/2005	B-016G 08/18/2005	B-017 09/02/2005
SAMPLE DEPTH (ft@g):								
Naphthalene	8270D	(ug/kg)	<1000UD	610D	<1000UD	<100U	<100U	<500UD
Nitrobenzene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
N-Nitrosodipropylamine	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
o-Cresol	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
o-Dichlorobenzene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
o-Nitroaniline	8270D	(ug/kg)	<5000UD	>5000UD	<5000UD	<500U	<500U	<2500UD
o-Nitrophenol	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
p-Chloroaniline	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
p-Chloro-m-cresol	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
PCP	8270D	(ug/kg)	<5000UD	>2500UD	<5000UD	<500U	<500U	>2500UD
p-Dichlorobenzene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
Phenanthrene	8270D	(ug/kg)	15000D	27000D	16000D	120	120	7500D
Phenol	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<100U	<100U	<500UD
p-Nitroaniline	8270D	(ug/kg)	<5000UD	>2500UD	<5000UD	<500U	<500U	>2500UD
p-Nitrophenol	8270D	(ug/kg)	<5000UD	>2500UD	<5000UD	<500U	<500U	>2500UD
Pyrene	8270D	(ug/kg)	18000D	24000D	22000D	<100U	<100U	11000D
SAMPLE DEPTH (ft@g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-018 09/02/2005	B-019 09/02/2005	B-020 09/02/2005	B-021 09/02/2005	B-022 09/02/2005
1,2,4-Trichlorobenzene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<500UD	<82U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 80 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-018 09/02/2005	B-019 09/02/2005	B-020 09/02/2005	B-021 09/02/2005	B-022 09/02/2005
		SAMPLE DEPTH (ft@e)		0.50	0.50	0.50	0.50	0.50
2,4,5-Trichlorophenol	8270D	(ug/kg)	<5000UD	>2500UD	<2500UD	<2500UD	<410U	<410U
2,4,6-Trichlorophenol	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
2,4-Dichlorophenol	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
2,4-Dimethylphenol	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
2,4-Dinitrophenol	8270D	(ug/kg)	<5000UD	>2500UD	<2500UD	<2500UD	<410U	<410U
2,4-Dinitrotoluene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
2,6-Dinitrotoluene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
2-Chloronaphthalene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
2-Chlorophenol	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
2-Methylnaphthalene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
3,3-Dichlorobenzidine	8270D	(ug/kg)	<5000UD	>2500UD	<2500UD	<2500UD	<410U	<410U
4,6-Dinitro-o-cresol	8270D	(ug/kg)	<5000UD	>2500UD	<2500UD	<2500UD	<410U	<410U
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
Acenaphthene	8270D	(ug/kg)	<1000UD	1100D	510D	600D	<82U	<82U
Acenaphthylene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
Aniline	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	<82U
Anthracene	8270D	(ug/kg)	2200D	2200D	1100D	820D	89	89
Benz(a)anthracene	8270D	(ug/kg)	6200D	3500D	2600D	2600D	380	380
Benz(a)pyrene	8270D	(ug/kg)	5700D	3000D	2500D	2500D	360	360
Benz(b)fluoranthene	8270D	(ug/kg)	7000D	6800D	4300D	3400D	480	480

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651  
Page 81 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-018 09/02/2005	B-019 09/02/2005	B-020 09/02/2005	B-021 09/02/2005	B-022 09/02/2005
			SAMPLE DEPTH (ft@e)					
Benzo(ghi)perylene	8270D	(ug/kg)		0.50 3200D	0.50 2900D	0.50 1600D	0.50 1400D	0.50 210
Benzo(k)fluoranthene	8270D	(ug/kg)		2600D	2500D	1400D	1100D	160
Benzoic acid	8270D	(ug/kg)		<5000UD	>2500UD	<2500UD	<2500UD	<410U
Benzyl alcohol	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Bis(2-chlorothoxy)methane	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Bis(2-chloroethyl)ether	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)		>3300UD	<1600UD	<1600UD	<1600UD	<270U
Butylbenzylphthalate	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Chrysene	8270D	(ug/kg)		5500D	5300D	3300D	2500D	370
Dibenzo(a,h)anthracene	8270D	(ug/kg)		<1000UD	840D	<500D	<500UD	<82U
Dibenzofuran	8270D	(ug/kg)		<1000UD	600D	<500UD	<500UD	<82U
Diethyl phthalate	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Dimethyl phthalate	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Di-n-butyl phthalate	8270D	(ug/kg)		>3300UD	<1600UD	<1600UD	<1600UD	<270U
Di-n-octyl phthalate	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Diphenylamine	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Fluoranthene	8270D	(ug/kg)		13000D	13000D	8200D	6200D	760
Fluorene	8270D	(ug/kg)		<1000D	940D	<500UD	<500UD	<82U
Hexachlorobenzene	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U
Hexachlorobutadiene	8270D	(ug/kg)		<1000UD	<500UD	<500UD	<500UD	<82U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 82 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-018 09/02/2005	B-019 09/02/2005	B-020 09/02/2005	B-021 09/02/2005	B-022 09/02/2005
			SAMPLE DEPTH (ft@g):					
Hexachlorocyclopentadiene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<500UD	<82U
Hexachloroethane	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<500UD	<82U
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	3000D	2700D	1600D	1300D	200	
Isophorone	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	
m-Cresol	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	
m-Dichlorobenzene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<500UD	<82U
m-Nitroaniline	8270D	(ug/kg)	<5000UD	>2500UD	>2500UD	>2500UD	<410U	
Naphthalene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	
Nitrobenzene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<500UD	<82U
N-Nitrosodipropylamine	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	
o-Cresol	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	
o-Dichlorobenzene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<500UD	<82U
o-Nitroaniline	8270D	(ug/kg)	<5000UD	>2500UD	>2500UD	>2500UD	<410U	
o-Nitrophenol	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	
p-Chloroaniline	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<500UD	<82U
p-Chloro-m-cresol	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<500UD	<82U
PCP	8270D	(ug/kg)	<5000UD	>2500UD	>2500UD	>2500UD	<410U	
p-Dichlorobenzene	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	
Phenanthrene	8270D	(ug/kg)	8200D	9200D	5700D	3400D	460	
Phenol	8270D	(ug/kg)	<1000UD	<500UD	<500UD	<500UD	<82U	
p-Nitroaniline	8270D	(ug/kg)	<5000UD	>2500UD	>2500UD	>2500UD	<410U	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 83 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-018	B-019	B-020	B-021	B-022
			SAMPLE DEPTH (ft@g)					09/02/2005	09/02/2005
p-Nitrophenol	8270D	(ug/kg)	<5000UD		0.50	0.50	0.50	0.50	0.50
Pyrene	8270D	(ug/kg)	9900D	11000D	>2500UD	>2500UD	<2500UD	<2500UD	<410U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-023	B-024	B-025	B-026	
			SAMPLE DEPTH (ft@g)					09/02/2005	09/02/2005
1,2,4-Trichlorobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
2,4,5-Trichlorophenol	8270D	(ug/kg)	>2500UD	<500U	>2500UD	<500U	>2500UD	<5000UD	<2500UD
2,4,6-Trichlorophenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
2,4-Dichlorophenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
2,4-Dimethylphenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
2,4-Dinitrophenol	8270D	(ug/kg)	>2500UD	<500U	>2500UD	<500U	>2500UD	<5000UD	<2500UD
2,4-Dinitrotoluene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
2,6-Dinitrotoluene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
2-Chloronaphthalene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
2-Chlorophenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
2-Methylnaphthalene	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
3,3-Dichlorobenzidine	8270D	(ug/kg)	>2500UD	<500U	>2500UD	<500U	>2500UD	<5000UD	<2500UD
4,6-Dinitro-o-cresol	8270D	(ug/kg)	>2500UD	<500U	>2500UD	<500U	>2500UD	<5000UD	<2500UD
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<500UD	<100U	<500UD	<100U	<500UD	<1000UD	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 84 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-023 09/01/2005	B-023 09/01/2005	B-024 09/02/2005	B-025 09/02/2005	B-026 09/02/2005
SAMPLE DEPTH (ft@e)								
Acenaphthene	8270D	(ug/kg)		0.50	12.00	0.50	0.50	0.50
Acenaphthylene	8270D	(ug/kg)		750D	<100U	580D	2300D	1000D
Aniline	8270D	(ug/kg)		530D	<100U	<500UD	<1000UD	<500UD
Anthracene	8270D	(ug/kg)		<500UD	<100U	<500UD	<1000UD	<500UD
Benzo(a)anthracene	8270D	(ug/kg)		3000D	<100U	100D	5500D	2900D
Benzo(a)pyrene	8270D	(ug/kg)		4900D	<100U	3200D	18000D	8300D
Benzo(b)fluoranthene	8270D	(ug/kg)		4100D	<100U	3000D	16000D	7400D
Benzo(ghi)perylene	8270D	(ug/kg)		5100D	<100U	400D	21000D	9400D
Benzo(k)fluoranthene	8270D	(ug/kg)		1700D	<100U	1700D	8600D	3700D
Benzoic acid	8270D	(ug/kg)		>2500UD	<500U	<2500UD	<5000UD	<2500UD
Benzyl alcohol	8270D	(ug/kg)		<500UD	<100U	<500UD	<1000UD	<500UD
Bis(2-chloroethoxy)methane	8270D	(ug/kg)		<500UD	<100U	<500UD	<1000UD	<500UD
Bis(2-chloroethyl)ether	8270D	(ug/kg)		<500UD	<100U	<500UD	<1000UD	<500UD
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)		<500UD	<100U	<500UD	<1000UD	<500UD
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)		<1600UD	>330U	<1600UD	1000D	<1600UD
Butylbenzylphthalate	8270D	(ug/kg)		<500UD	<100U	800D	<1000UD	830D
Chrysene	8270D	(ug/kg)		4900D	<100U	3100D	15000D	7200D
Dibenz(a,h)anthracene	8270D	(ug/kg)		580D	<100U	<500UD	2400D	1100D
Dibenzofuran	8270D	(ug/kg)		830D	<100U	<500UD	<1000UD	610D
Diethyl phthalate	8270D	(ug/kg)		<500UD	<100U	<500UD	<1000UD	<500UD
Dimethyl phthalate	8270D	(ug/kg)		<500UD	<100U	<500UD	<1000UD	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 85 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-023 09/01/2005	B-023 09/01/2005	B-024 09/02/2005	B-025 09/02/2005	B-026 09/02/2005
		SAMPLE DEPTH (ft@e)						
Di-n-butyl phthalate	8270D	(ug/kg)	<1600UD	<330U	<1600UD	<3300UD	<1600UD	<1600UD
Di-n-octyl phthalate	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
Diphenylamine	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
Fluoranthene	8270D	(ug/kg)	11000D	<100U	6500D	37000D	17000D	
Fluorene	8270D	(ug/kg)	1400D	<100U	<500UD	2000D	1300D	
Hexachlorobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
Hexachlorobutadiene	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
Hexachlorocyclopentadiene	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
Hexachloroethane	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	1900D	<100U	1600D	8100D	3600D	
Isophorone	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
m-Cresol	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
m-Dichlorobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
m-Nitroaniline	8270D	(ug/kg)	>2500UD	>500U	>2500UD	<5000UD	>2500UD	<5000UD
Naphthalene	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
Nitrobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
N-Nitrosodipropylamine	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
o-Cresol	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
o-Dichlorobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
o-Nitroaniline	8270D	(ug/kg)	>2500UD	>500U	>2500UD	<5000UD	>2500UD	<5000UD
o-Nitrophenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 86 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-023	B-023	B-024	B-025	B-026
			SAMPLE DATE:	09/01/2005	09/01/2005	09/02/2005	09/02/2005	09/02/2005
			SAMPLE DEPTH (fbg):					
p-Chloroaniline	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
p-Chloro-m-cresol	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
PCP	8270D	(ug/kg)	>2500UD	<500U	<2500UD	<5000UD	<2500UD	<2500UD
p-Dichlorobenzene	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
Phenanthrene	8270D	(ug/kg)	8900D	<100U	3700D	18000D	10000D	10000D
Phenol	8270D	(ug/kg)	<500UD	<100U	<500UD	<1000UD	<500UD	<500UD
p-Nitroaniline	8270D	(ug/kg)	>2500UD	<500U	<2500UD	<5000UD	<2500UD	<2500UD
p-Nitrophenol	8270D	(ug/kg)	>2500UD	<500U	<2500UD	<5000UD	<2500UD	<2500UD
Pyrene	8270D	(ug/kg)	7800D	<100U	5100D	30000D	13000D	13000D
			SAMPLE LOCATION:	B-027	B-028	B-029	B-030	B-031
			SAMPLE DATE:	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005
			SAMPLE DEPTH (fbg):					
1,2,4-Trichlorobenzene	8270D	(ug/kg)	<500UD	0.50	0.50	0.50	0.50	0.50
2,4,5-Trichlorophenol	8270D	(ug/kg)	>2500UD	<5000UD	<5000UD	<2500UD	<5000UD	<5000UD
2,4,6-Trichlorophenol	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	<1000UD
2,4-Dichlorophenol	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	<1000UD
2,4-Dimethylphenol	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	<1000UD
2,4-Dinitrophenol	8270D	(ug/kg)	>2500UD	<5000UD	<5000UD	<2500UD	<5000UD	<5000UD
2,4-Dinitrotoluene	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	<1000UD
2,6-Dinitrotoluene	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	<1000UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 87 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-027 09/02/2005	B-028 09/02/2005	B-029 09/02/2005	B-030 09/02/2005	B-031 09/02/2005
		SAMPLE DEPTH (ft@e)		0.50	0.50	0.50	0.50	0.50
2-Chloronaphthalene	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<500UD	<1000UD
2-Chlorophenol	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<500UD	<1000UD
2-Methylnaphthalene	8270D	(ug/kg)	<500UD	1500D	<1000UD	<500UD	<500UD	<1000UD
3,3-Dichlorobenzidine	8270D	(ug/kg)	>2500UD	<5000UD	<5000UD	<2500UD	<2500UD	<5000UD
4,6-Dinitro-o-cresol	8270D	(ug/kg)	>2500UD	<5000UD	<5000UD	<2500UD	<2500UD	<5000UD
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<500UD	<1000UD
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<500UD	<1000UD
Acenaphthene	8270D	(ug/kg)	1100D	2200D	<1000UD	<1000UD	620D	<1000UD
Acenaphthylene	8270D	(ug/kg)	<500UD	1600D	<1000UD	<500UD	<500UD	<1000UD
Aniline	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<500UD	<1000UD
Anthracene	8270D	(ug/kg)	2700D	7200D	1600D	1700D	2200D	
Benzo(a)anthracene	8270D	(ug/kg)	8000D	16000D	5900D	6500D	8000D	
Benzo(a)pyrene	8270D	(ug/kg)	7400D	13000D	5800D	6100D	8400D	
Benzo(b)fluoranthene	8270D	(ug/kg)	9300D	17000D	7300D	7800D	10000D	
Benzo(ghi)perylene	8270D	(ug/kg)	3900D	6400D	3300D	3200D	4900D	
Benzo(k)fluoranthene	8270D	(ug/kg)	3700D	5700D	2600D	2900D	3800D	
Benzic acid	8270D	(ug/kg)	>2500UD	<5000UD	<5000UD	<2500UD	<5000UD	<5000UD
Benzyl alcohol	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<500UD	<1000UD
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<500UD	<1000UD
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<500UD	<1000UD
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<500UD	<1000UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 88 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-027 09/02/2005	B-028 09/02/2005	B-029 09/02/2005	B-030 09/02/2005	B-031 09/02/2005
			SAMPLE DEPTH (ft@e)					
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)	<1600UD	<3300UD	<3300UD	<1600UD	<1600UD	12000D
Butylbenzylphthalate	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
Chrysene	8270D	(ug/kg)	7000D	13000D	5400D	5600D	6900D	
Dibenzo(a,h)anthracene	8270D	(ug/kg)	1100D	2000D	<1000UD	920D	1300D	
Dibenzofuran	8270D	(ug/kg)	650D	1900D	<1000UD	<500UD	<1000UD	
Diethyl phthalate	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
Dimethyl phthalate	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
Di-n-butyl phthalate	8270D	(ug/kg)	<1600UD	<3300UD	<3300UD	<1600UD	<3300UD	
Di-n-octyl phthalate	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
Diphenylamine	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
Fluoranthene	8270D	(ug/kg)	17000D	35000D	12000D	13000D	16000D	
Fluorene	8270D	(ug/kg)	1200D	3200D	<1000UD	620D	<1000UD	
Hexachlorobenzene	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
Hexachlorobutadiene	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
Hexachlorocyclopentadiene	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
Hexachloroethane	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
Indeno[1,2,3-c]phenyrene	8270D	(ug/kg)	3700D	6200D	3100D	3100D	4500D	
Isophorone	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
m-Cresol	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
m-Dichlorobenzene	8270D	(ug/kg)	<500UD	<1000UD	<1000UD	<500UD	<1000UD	
m-Nitroaniline	8270D	(ug/kg)	>2500UD	<5000UD	<5000UD	<2500UD	<5000UD	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 89 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-027 09/02/2005	B-028 09/02/2005	B-029 09/02/2005	B-030 09/02/2005	B-031 09/02/2005
SAMPLE DEPTH (ft@g):								
Naphthalene	8270D	(ug/kg)		<500D	2100D	<1000UD	<500UD	<1000UD
Nitrobenzene	8270D	(ug/kg)		<500UD	<1000UD	<1000UD	<500UD	<1000UD
N-Nitrosodipropylamine	8270D	(ug/kg)		<500UD	<1000UD	<1000UD	<500UD	<1000UD
o-Cresol	8270D	(ug/kg)		<500UD	<1000UD	<1000UD	<500UD	<1000UD
o-Dichlorobenzene	8270D	(ug/kg)		<500UD	<1000UD	<1000UD	<500UD	<1000UD
o-Nitroaniline	8270D	(ug/kg)		>2500UD	<5000UD	<5000UD	<2500UD	<5000UD
o-Nitrophenol	8270D	(ug/kg)		<500UD	<1000UD	<1000UD	<500UD	<1000UD
p-Chloroaniline	8270D	(ug/kg)		<500UD	<1000UD	<1000UD	<500UD	<1000UD
p-Chloro-m-cresol	8270D	(ug/kg)		<500UD	<1000UD	<1000UD	<500UD	<1000UD
PCP	8270D	(ug/kg)		>2500UD	<5000UD	<5000UD	<2500UD	<5000UD
p-Dichlorobenzene	8270D	(ug/kg)		<500UD	<1000UD	<1000UD	<500UD	<1000UD
Phenanthrene	8270D	(ug/kg)		10000D	23000D	6800D	5900D	7400D
Phenol	8270D	(ug/kg)		<500UD	<1000UD	<1000UD	<500UD	<1000UD
p-Nitroaniline	8270D	(ug/kg)		>2500UD	<5000UD	<5000UD	<2500UD	<5000UD
p-Nitrophenol	8270D	(ug/kg)		>2500UD	<5000UD	<5000UD	<2500UD	<5000UD
Pyrene	8270D	(ug/kg)		12000D	25000D	10000D	9500D	13000D
SAMPLE DEPTH (ft@g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-032 09/02/2005	B-033 09/02/2005	B-034 09/02/2005	B-035 09/02/2005	B-036 09/02/2005
1,2,4-Trichlorobenzene	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651  
Page 90 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-032 09/02/2005	B-033 09/02/2005	B-034 09/02/2005	B-035 09/02/2005	B-036 09/02/2005
		SAMPLE DEPTH (ft@e)		0.50	0.50	0.50	0.50	0.50
2,4,5-Trichlorophenol	8270D	(ug/kg)	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD	<2500UD
2,4,6-Trichlorophenol	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
2,4-Dichlorophenol	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
2,4-Dimethylphenol	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
2,4-Dinitrophenol	8270D	(ug/kg)	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD	<2500UD
2,4-Dinitrotoluene	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
2,6-Dinitrotoluene	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
2-Chloronaphthalene	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
2-Chlorophenol	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
2-Methylnaphthalene	8270D	(ug/kg)	620D	1200D	<500UD	<500UD	<500UD	<500UD
3,3-Dichlorobenzidine	8270D	(ug/kg)	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD	<2500UD
4,6-Dinitro-o-cresol	8270D	(ug/kg)	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD	<2500UD
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
Acenaphthene	8270D	(ug/kg)	1300D	2600D	<500UD	780D	990D	570D
Acenaphthylene	8270D	(ug/kg)	650D	2500D	<500UD	510D	<500UD	<500UD
Aniline	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
Anthracene	8270D	(ug/kg)	3500D	9200D	2000D	2800D	1500D	1500D
Benz(a)anthracene	8270D	(ug/kg)	7700D	19000D	6300D	7600D	4200D	4200D
Benz(a)pyrene	8270D	(ug/kg)	7300D	16000D	6500D	7800D	4200D	4200D
Benz(b)fluoranthene	8270D	(ug/kg)	8400D	19000D	7400D	9400D	5200D	5200D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 91 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-032 09/02/2005	B-033 09/02/2005	B-034 09/02/2005	B-035 09/02/2005	B-036 09/02/2005
SAMPLE DEPTH (ft@e)								
Benzo(ghi)perylene	8270D	(ug/kg)		3600D	8000D	3800D	4100D	2400D
Benzo(k)fluoranthene	8270D	(ug/kg)		3800D	8200D	3500D	4200D	2300D
Benzoic acid	8270D	(ug/kg)		>2500UD	<5000UD	<2500UD	<2500UD	<2500UD
Benzyl alcohol	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Bis(2-chloroethoxy)methane	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Bis(2-chloroethyl)ether	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)		<1600UD	<3300UD	<1600UD	<1600UD	<1600UD
Butylbenzylphthalate	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Chrysene	8270D	(ug/kg)		7300D	19000D	6200D	8100D	4400D
Dibenzo(a,h)anthracene	8270D	(ug/kg)		1100D	2600D	1100D	1200D	630D
Dibenzofuran	8270D	(ug/kg)		1100D	2300D	<500UD	550D	<500UD
Diethyl phthalate	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Dimethyl phthalate	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Di-n-butyl phthalate	8270D	(ug/kg)		<1600UD	<3300UD	<1600UD	<1600UD	<1600UD
Di-n-octyl phthalate	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Diphenylamine	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Fluoranthene	8270D	(ug/kg)		1600D	37000D	1100D	14000D	8300D
Fluorene	8270D	(ug/kg)		1800D	4000D	790D	1200D	650D
Hexachlorobenzene	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD
Hexachlorobutadiene	8270D	(ug/kg)		<500UD	<1000UD	<500UD	<500UD	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 92 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-032 09/02/2005	B-033 09/02/2005	B-034 09/02/2005	B-035 09/02/2005	B-036 09/02/2005
			SAMPLE DEPTH (ft@e)					
Hexachlorocyclopentadiene	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
Hexachloroethane	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	3900D	8700D	3900D	4400D	2500D	
Isophorone	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
m-Cresol	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
m-Dichlorobenzene	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
m-Nitroaniline	8270D	(ug/kg)	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD	<2500UD
Naphthalene	8270D	(ug/kg)	1200D	2000D	2000D	<500UD	<500UD	<500UD
Nitrobenzene	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
N-Nitrosodipropylamine	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
o-Cresol	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
o-Dichlorobenzene	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
o-Nitroaniline	8270D	(ug/kg)	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD	<2500UD
o-Nitrophenol	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
p-Chloroaniline	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
p-Chloro-m-cresol	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
PCP	8270D	(ug/kg)	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD	<2500UD
p-Dichlorobenzene	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
Phenanthrene	8270D	(ug/kg)	11000D	28000D	6700D	9100D	5800D	
Phenol	8270D	(ug/kg)	<500UD	<1000UD	<500UD	<500UD	<500UD	<500UD
p-Nitroaniline	8270D	(ug/kg)	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD	<2500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 93 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-032	B-033	B-034	B-035	B-036
p-Nitrophenol	8270D	(ug/kg)	SAMPLE DEPTH (ft@g):		0.50	0.50	0.50	0.50	0.50
Pyrene	8270D	(ug/kg)		>2500UD	<5000UD	<2500UD	<2500UD	<2500UD	<2500UD
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-037	B-038	B-039	B-040	B-041
			SAMPLE DEPTH (ft@g):		0.50	0.50	0.50	0.50	0.50
1,2,4-Trichlorobenzene	8270D	(ug/kg)		<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
2,4,5-Trichlorophenol	8270D	(ug/kg)		>2500UD	>2500UD	>5000UD	<5000UD	<2000UD	<2000UD
2,4,6-Trichlorophenol	8270D	(ug/kg)		<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
2,4-Dichlorophenol	8270D	(ug/kg)		<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
2,4-Dimethylphenol	8270D	(ug/kg)		<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
2,4-Dinitrophenol	8270D	(ug/kg)		>2500UD	>2500UD	>5000UD	<5000UD	<2000UD	<2000UD
2,4-Dinitrotoluene	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD	<400UD
2,6-Dinitrotoluene	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD	<400UD
2-Chloronaphthalene	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD	<400UD
2-Chlorophenol	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD	<400UD
2-Methylnaphthalene	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD	<400UD
3,3-Dichlorobenzidine	8270D	(ug/kg)		>2500UD	>2500UD	<5000UD	<5000UD	<2000UD	<2000UD
4,6-Dinitro-o-cresol	8270D	(ug/kg)		>2500UD	>2500UD	<5000UD	<5000UD	<2000UD	<2000UD
4-Bromophenyl phenyl ether	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD	<400UD
4-Chlorophenyl phenyl ether	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD	<400UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 94 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-037 09/02/2005	B-038 09/02/2005	B-039 09/02/2005	B-040 09/02/2005	B-041 09/02/2005
			SAMPLE DEPTH (ft@e)					
Acenaphthene	8270D	(ug/kg)		0.50	0.50	0.50	0.50	0.50
Acenaphthylene	8270D	(ug/kg)		660D	<500D	<1000UD	1100D	<400UD
Aniline	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD
Anthracene	8270D	(ug/kg)		2300D	1400D	<1000UD	<1000UD	<400UD
Benzo(a)anthracene	8270D	(ug/kg)		5500D	4300D	<1000UD	7200D	1500D
Benzo(a)pyrene	8270D	(ug/kg)		5000D	4500D	<1000UD	7100D	1600D
Benzo(b)fluoranthene	8270D	(ug/kg)		5800D	5100D	<1000UD	8200D	1800D
Benzo(ghi)perylene	8270D	(ug/kg)		2700D	2900D	<1000UD	3500D	1000D
Benzo(k)fluoranthene	8270D	(ug/kg)		2600D	2300D	<1000UD	2800D	800D
Benzoic acid	8270D	(ug/kg)		>2500UD	>2500UD	<5000UD	<5000UD	<2000UD
Benzyl alcohol	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD
Bis(2-chloroethoxy)methane	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD
Bis(2-chloroethyl)ether	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)		<1600UD	<1600UD	<3300UD	<3300UD	<1300UD
Butylbenzylphthalate	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD
Chrysene	8270D	(ug/kg)		5200D	4200D	<1000UD	7300D	1500D
Dibenz(a,h)anthracene	8270D	(ug/kg)		760D	790D	<1000UD	<1000D	<400UD
Dibenzofuran	8270D	(ug/kg)		<500D	<500UD	<1000UD	<1000UD	<400UD
Diethyl phthalate	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD
Dimethyl phthalate	8270D	(ug/kg)		<500UD	<500UD	<1000UD	<1000UD	<400UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 95 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-037 09/02/2005	B-038 09/02/2005	B-039 09/02/2005	B-040 09/02/2005	B-041 09/02/2005
			SAMPLE DEPTH (ft@e)					
Di-n-butyl phthalate	8270D	(ug/kg)	<1600UD	<1600UD	<500UD	<300UD	<3300UD	<1300UD
Di-n-octyl phthalate	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
Diphenylamine	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
Fluoranthene	8270D	(ug/kg)	1100UD	9000D	<1000UD	17000D	3000D	
Fluorene	8270D	(ug/kg)	930D	530D	<1000UD	<1000UD	<400UD	
Hexachlorobenzene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
Hexachlorobutadiene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
Hexachlorocyclopentadiene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
Hexachloroethane	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	2900D	3000D	<1000UD	3800D	1000D	
Isophorone	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
m-Cresol	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
m-Dichlorobenzene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
m-Nitroaniline	8270D	(ug/kg)	>2500UD	>2500UD	<5000UD	<5000UD	<2000UD	
Naphthalene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
Nitrobenzene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
N-Nitrosodipropylamine	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
o-Cresol	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
o-Dichlorobenzene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<1000UD	<400UD	
o-Nitroaniline	8270D	(ug/kg)	>2500UD	>2500UD	<5000UD	<5000UD	<2000UD	
o-Nitrophenol	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<1000UD	<400UD	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 96 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-037 09/02/2005	B-038 09/02/2005	B-039 09/02/2005	B-040 09/02/2005	B-041 09/02/2005
			SAMPLE DEPTH (fbg):					
p-Chloroaniline	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
p-Chloro-m-cresol	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<400UD
PCP	8270D	(ug/kg)	>2500UD	>2500UD	>5000UD	<5000UD	<5000UD	<2000UD
p-Dichlorobenzene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<1000UD	<1000UD	<400UD
Phenanthrene	8270D	(ug/kg)	7700D	4600D	<1000UD	13000D	1500D	
Phenol	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<1000UD	<400UD	
p-Nitroaniline	8270D	(ug/kg)	>2500UD	>2500UD	>5000UD	<5000UD	<2000UD	
p-Nitrophenol	8270D	(ug/kg)	>2500UD	>2500UD	>5000UD	<5000UD	<2000UD	
Pyrene	8270D	(ug/kg)	9500D	7000D	<1000UD	15000D	2200D	
			SAMPLE DEPTH (fbg):					
			SAMPLE LOCATION: SAMPLE DATE:					
			B-042 09/02/2005	B-043 09/02/2005	B-044 09/02/2005	B-045 09/02/2005	B-046 09/02/2005	
1,2,4-Trichlorobenzene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
2,4,5-Trichlorophenol	8270D	(ug/kg)	>2500UD	>2500UD	>5000UD	<25000UD	<25000UD	<25000UD
2,4,6-Trichlorophenol	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
2,4-Dichlorophenol	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
2,4-Dimethylphenol	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
2,4-Dinitrophenol	8270D	(ug/kg)	>2500UD	>2500UD	>5000UD	<25000UD	<25000UD	<25000UD
2,4-Dinitrotoluene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
2,6-Dinitrotoluene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 97 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-042 09/02/2005	B-043 09/02/2005	B-044 09/02/2005	B-045 09/02/2005	B-046 09/02/2005
		SAMPLE DEPTH (ft@e)		0.50	0.50	0.50	0.50	0.50
2-Chloronaphthalene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
2-Chlorophenol	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
2-Methylnaphthalene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
3,3-Dichlorobenzidine	8270D	(ug/kg)	>2500UD	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD
4,6-Dinitro-o-cresol	8270D	(ug/kg)	>2500UD	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Acenaphthene	8270D	(ug/kg)	<500UD	670D	<1000D	<500UD	<500UD	590D
Acenaphthylene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Aniline	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Anthracene	8270D	(ug/kg)	<500UD	1000D	2400D	1300D	1500D	1500D
Benz(a)anthracene	8270D	(ug/kg)	1400D	1900D	7300D	3800D	4200D	
Benz(a)pyrene	8270D	(ug/kg)	1600D	2000D	8400D	4000D	4300D	
Benz(b)fluoranthene	8270D	(ug/kg)	1900D	2400D	9700D	4600D	5100D	
Benz(ghi)perylene	8270D	(ug/kg)	1100D	1300D	5300D	2500D	2500D	
Benz(k)fluoranthene	8270D	(ug/kg)	770D	940D	3900D	2000D	1800D	
Benzoic acid	8270D	(ug/kg)	>2500UD	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD
Benzyl alcohol	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Bis(2-chloroethyl)ether	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 98 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	B-042 09/02/2005	B-043 09/02/2005	B-044 09/02/2005	B-045 09/02/2005	B-046 09/02/2005
			SAMPLE DEPTH (ft@e)					
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)	<1600UD	<1600UD	9400UD	<1600UD	<1600UD	<1600UD
Butylbenzylphthalate	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Chrysene	8270D	(ug/kg)	1600D	2100D	8500D	4000D	4000D	4000D
Dibenz(a,h)anthracene	8270D	(ug/kg)	<500UD	<500UD	1300D	660D	710D	710D
Dibenzofuran	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Diethyl phthalate	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Dimethyl phthalate	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Di-n-butyl phthalate	8270D	(ug/kg)	<1600UD	<1600UD	<3300UD	<1600UD	<1600UD	<1600UD
Di-n-octyl phthalate	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Diphenylamine	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Fluoranthene	8270D	(ug/kg)	3200D	4800D	1500D	7800D	8100D	8100D
Fluorene	8270D	(ug/kg)	<500UD	510D	1100D	<500UD	<500UD	650D
Hexachlorobenzene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Hexachlorobutadiene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Hexachlorocyclopentadiene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Hexachloroethane	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
Indeno[1,2,3-c]phenyrene	8270D	(ug/kg)	1000D	1300D	5400D	2500D	2600D	2600D
Isophorone	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
m-Cresol	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
m-Dichlorobenzene	8270D	(ug/kg)	<500UD	<500UD	<1000UD	<500UD	<500UD	<500UD
m-Nitroaniline	8270D	(ug/kg)	>2500UD	>2500UD	<5000UD	<2500UD	<2500UD	<2500UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

Page 99 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	B-042	B-043	B-044	B-045	B-046
			SAMPLE DEPTH (ft@g)		0.50	0.50	0.50	0.50	0.50
Naphthalene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
Nitrobenzene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
N-Nitrosodipropylamine	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
o-Cresol	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
o-Dichlorobenzene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
o-Nitroaniline	8270D	(ug/kg)	>2500UD	>2500UD	>2500UD	<5000UD	<5000UD	<2500UD	<2500UD
o-Nitrophenol	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
p-Chloroaniline	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
p-Chloro-m-cresol	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
PCP	8270D	(ug/kg)	>2500UD	>2500UD	>2500UD	<5000UD	<5000UD	<2500UD	<2500UD
p-Dichlorobenzene	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
Phenanthrene	8270D	(ug/kg)	1700D	3600D	3600D	8400D	8400D	4300D	4900D
Phenol	8270D	(ug/kg)	<500UD	<500UD	<500UD	<1000UD	<1000UD	<500UD	<500UD
p-Nitroaniline	8270D	(ug/kg)	>2500UD	>2500UD	>2500UD	<5000UD	<5000UD	<2500UD	<2500UD
p-Nitrophenol	8270D	(ug/kg)	>2500UD	>2500UD	>2500UD	<5000UD	<5000UD	<2500UD	<2500UD
Pyrene	8270D	(ug/kg)	2500D	4000D	4000D	16000D	16000D	6200D	8000D
			SAMPLE LOCATION:		B-047	B-048			
			SAMPLE DATE:		09/02/2005	09/02/2005			
			SAMPLE DEPTH (ft@g)		0.50	0.50			
1,2,4-Trichlorobenzene	8270D	(ug/kg)	<1000UD	<5000UD					

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 100 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-047	B-048
			SAMPLE DATE:	09/02/2005	09/02/2005
			SAMPLE DEPTH (ft@e)	0.50	0.50
2,4,5-Trichlorophenol	8270D	(ug/kg)	<5000UD	<25000UD	
2,4,6-Trichlorophenol	8270D	(ug/kg)	<1000UD	<5000UD	
2,4-Dichlorophenol	8270D	(ug/kg)	<1000UD	<5000UD	
2,4-Dimethylphenol	8270D	(ug/kg)	<1000UD	<5000UD	
2,4-Dinitrophenol	8270D	(ug/kg)	<5000UD	<25000UD	
2,4-Dinitrotoluene	8270D	(ug/kg)	<1000UD	<5000UD	
2,6-Dinitrotoluene	8270D	(ug/kg)	<1000UD	<5000UD	
2-Chloronaphthalene	8270D	(ug/kg)	<1000UD	<5000UD	
2-Chlorophenol	8270D	(ug/kg)	<1000UD	<5000UD	
2-Methylnaphthalene	8270D	(ug/kg)	<1000UD	<5000UD	
3,3-Dichlorobenzidine	8270D	(ug/kg)	<5000UD	<25000UD	
4,6-Dinitro-o-cresol	8270D	(ug/kg)	<5000UD	<25000UD	
4-Bromophenyl phenyl ether	8270D	(ug/kg)	<1000UD	<5000UD	
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	<1000UD	<5000UD	
Acenaphthene	8270D	(ug/kg)	<1000UD	17000D	
Acenaphthylene	8270D	(ug/kg)	<1000UD	<5000UD	
Aniline	8270D	(ug/kg)	<1000UD	<5000UD	
Anthracene	8270D	(ug/kg)	1600D	27000D	
Benz(a)anthracene	8270D	(ug/kg)	6200D	57000D	
Benz(a)pyrene	8270D	(ug/kg)	6100D	46000D	
Benz(b)fluoranthene	8270D	(ug/kg)	8200D	62000D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 101 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-047	B-048
			SAMPLE DATE:	09/02/2005	09/02/2005
			SAMPLE DEPTH (ft@e)	0.50	0.50
Benz(ghi)perylene	8270D	(ug/kg)	3800D	25000D	
Benz(k)fluoranthene	8270D	(ug/kg)	2700D	21000D	
Benzoic acid	8270D	(ug/kg)	<5000UD	<25000UD	
Benzyl alcohol	8270D	(ug/kg)	<1000UD	<5000UD	
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	<1000UD	<5000UD	
Bis(2-chloroethyl)ether	8270D	(ug/kg)	<1000UD	<5000UD	
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	<1000UD	<5000UD	
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)	<3300UD	<16000UD	
Butylbenzylphthalate	8270D	(ug/kg)	<1000UD	<5000UD	
Chrysene	8270D	(ug/kg)	5700D	50000D	
Dibenzo(a,h)anthracene	8270D	(ug/kg)	<1000UD	7400D	
Dibenzofuran	8270D	(ug/kg)	<1000UD	8200D	
Diethyl phthalate	8270D	(ug/kg)	<1000UD	<5000UD	
Dimethyl phthalate	8270D	(ug/kg)	<1000UD	<5000UD	
Di-n-butyl phthalate	8270D	(ug/kg)	<3300UD	<16000UD	
Di-n-octyl phthalate	8270D	(ug/kg)	<1000UD	<5000UD	
Diphenylamine	8270D	(ug/kg)	<1000UD	<5000UD	
Fluoranthene	8270D	(ug/kg)	11000D	130000D	
Florene	8270D	(ug/kg)	<1000UD	12000D	
Hexachlorobenzene	8270D	(ug/kg)	<1000UD	<5000UD	
Hexachlorobutadiene	8270D	(ug/kg)	<1000UD	<5000UD	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 102 of 103

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	B-047	B-048
			SAMPLE DATE:	09/02/2005	09/02/2005
			SAMPLE DEPTH (ft@e)	0.50	0.50
Hexachlorocyclopentadiene	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
Hexachloroethane	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	3500D	24000D	24000D
Isophorone	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
m-Cresol	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
m-Dichlorobenzene	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
m-Nitroaniline	8270D	(ug/kg)	<5000UD	<25000UD	<25000UD
Naphthalene	8270D	(ug/kg)	<1000UD	8000D	8000D
Nitrobenzene	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
N-Nitrosodipropylamine	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
o-Cresol	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
o-Dichlorobenzene	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
o-Nitroaniline	8270D	(ug/kg)	<5000UD	<25000UD	<25000UD
o-Nitrophenol	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
p-Chloroaniline	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
p-Chloro-m-cresol	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
PCP	8270D	(ug/kg)	<5000UD	<25000UD	<25000UD
p-Dichlorobenzene	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
Phenanthrene	8270D	(ug/kg)	5500D	100000D	100000D
Phenol	8270D	(ug/kg)	<1000UD	<5000UD	<5000UD
p-Nitroaniline	8270D	(ug/kg)	<5000UD	<25000UD	<25000UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651  
Page 103 of 103

EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	
			SAMPLE DEPTH (ft@g):		
p-Nitrophenol	8270D	(ug/kg)	<5000UD	0.50	<25000UD
Pyrene	8270D	(ug/kg)	10000D	0.50	88000D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 5

## ANALYTICAL CHEMISTRY REPORT

### MATRIX: SOIL

#### METHODS:

- EPA Method 160.3 - Total Residue by Drying Oven
- EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry
- EPA Method 8082 - Polychlorinated Biphenyls (PCBs)
- EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	CF002-01 11/08/2005	CF002-02 11/08/2005	CF002-03 11/08/2005
Total Solids	160.3	(%)	SAMPLE DEPTH (ft@g):	4.00	12.00	4.00
				88.5	91.6	91.4
			SAMPLE LOCATION: SAMPLE DATE:	CF002-03 11/08/2005	CF002-04 11/08/2005	CF002-05 11/08/2005
Total Solids	160.3	(%)	SAMPLE DEPTH (ft@g):	8.00	4.00	12.00
				87.3	87.6	89.9
						8.00
						88.3

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental

Professional Services Group, Inc.

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	
Total Solids		160.3 (%)		CF002-06 11/08/2005	CF002-06 11/08/2005
			SAMPLE DEPTH (fbg):	8.00	12.00

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	
Lead	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	4.00 170	12.00 6.6 130
Arsenic	6010B	(mg/kg)		8.8 <8.0U	4.00 53 <8.0U 4.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	
Lead	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	8.00 140	12.00 120 35
Arsenic	6010B	(mg/kg)		<8.0U <8.0U	<8.0U <8.0U <8.0U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	
Lead	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	8.00 150	12.00 110
Arsenic	6010B	(mg/kg)		8.2 <8.0U	<8.0U <8.0U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 3 of 5

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	CF002-01	CF002-02	CF002-03
PCB (Aroclor 1254)	8082	(mg/kg)	SAMPLE DEPTH (fbg):	4.00	12.00	4.00	4.00
PCB (Aroclor 1260)	8082	(mg/kg)		<10UD	<1000UD	<1.1UD	<75UD
PCB( Total Aroclors)	8082	(mg/kg)		20D	4100D	4.2D	240D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	CF002-03	CF002-04	CF002-05
PCB (Aroclor 1254)	8082	(mg/kg)	SAMPLE DEPTH (fbg):	8.00	4.00	12.00	4.00
PCB (Aroclor 1260)	8082	(mg/kg)		<5.1UD	<4.8UD	<4.6UD	<5.1UD
PCB( Total Aroclors)	8082	(mg/kg)		7.1D	6.8D	19D	9.6D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	CF002-06	CF002-06	CF002-05
PCB (Aroclor 1254)	8082	(mg/kg)	SAMPLE DEPTH (fbg):	8.00	12.00	8.00	8.00
PCB (Aroclor 1260)	8082	(mg/kg)		<4.9UD	<5.1UD	<5.1UD	<100UD
PCB( Total Aroclors)	8082	(mg/kg)		8.0D	8.0D	12D	320D
EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)							

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 4 of 5

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	CF002-01	CF002-02	CF002-03
			SAMPLE DEPTH (fbg):				
Naphthalene	8270D	(ug/kg)	<1000UD	11/08/2005	4.00	12.00	4.00
Benzo(a)anthracene	8270D	(ug/kg)	7400D		<1000UD	<1000UD	<1000UD
Benzo(a)pyrene	8270D	(ug/kg)	5900D		<1000UD	4300D	6400D
Benzo(b)fluoranthene	8270D	(ug/kg)	7500D		<1000UD	3800D	5600D
Dibenz(a,h)anthracene	8270D	(ug/kg)	<1000UD		<1000UD	4600D	7100D
			SAMPLE LOCATION:		CF002-03	CF002-04	CF002-05
			SAMPLE DATE:		11/08/2005	11/08/2005	11/08/2005
			SAMPLE DEPTH (fbg):				
Naphthalene	8270D	(ug/kg)	<1000UD	11/08/2005	8.00	4.00	12.00
Benzo(a)anthracene	8270D	(ug/kg)	7300D		3300D	2700D	7800D
Benzo(a)pyrene	8270D	(ug/kg)	6400D		7200D	2600D	6600D
Benzo(b)fluoranthene	8270D	(ug/kg)	8100D		9300D	2500D	8900D
Dibenz(a,h)anthracene	8270D	(ug/kg)	<1000D		1100D	<1000UD	<1000UD
			SAMPLE LOCATION:		CF002-06	CF002-06	CF002-06
			SAMPLE DATE:		11/08/2005	11/08/2005	11/08/2005
			SAMPLE DEPTH (fbg):				
Naphthalene	8270D	(ug/kg)	2100D		8.00	12.00	8.00
Benzo(a)anthracene	8270D	(ug/kg)	14000D		<1000UD	6600D	<1000UD
Benzo(a)pyrene	8270D	(ug/kg)	10000D		10000D	5300D	5300D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651

Page 5 of 5

### EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	
			SAMPLE DEPTH (ft@g):		
Benzo(b)fluoranthene	8270D	(ug/kg)	8.00		12.00
Dibenz(a,h)anthracene	8270D	(ug/kg)	14000D		6500D
			1600D		<1000UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 11

## ANALYTICAL CHEMISTRY REPORT

**FORMER SCHMIDT'S BREWERY**  
**NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA**

### MATRIX: SOIL

#### METHODS:

EPA Method 160.3 - Total Residue by Drying Oven  
EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	GRAB-030 08/10/2007	GRAB-032 08/10/2007	GRAB-033 08/10/2007	GRAB-036 08/10/2007	GRAB-037 08/10/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
			SAMPLE LOCATION: SAMPLE DATE:	90.1	89.9	88.2	88.8	90.2
CONSTITUENT	METHOD	UNITS	SAMPLE DEPTH (fbg):	GRAB-038 08/10/2007	GRAB-039 08/10/2007	GRAB-040 08/10/2007	GRAB-041 08/10/2007	GRAB-042 08/10/2007
Total Solids		160.3 (%)	SAMPLE LOCATION: SAMPLE DATE:	94.2	91.2D	92.1	91.5	93.3
CONSTITUENT	METHOD	UNITS	SAMPLE DEPTH (fbg):	GRAB-043 08/10/2007	GRAB-044 08/10/2007	GRAB-045 08/10/2007	GRAB-046 08/10/2007	GRAB-047 08/10/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	85.5	90.8	90.1	98.6	98.6

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	GRAB-048	GRAB-049	GRAB-057	GRAB-067	GRAB-072
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	GRAB-073	GRAB-074	GRAB-083	GRAB-087	GRAB-090
Total Solids		160.3 (%)	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	GRAB-092	GRAB-094	GRAB-095	GRAB-096	GRAB-097
Total Solids		160.3 (%)	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	GRAB-098	GRAB-110	GRAB-153	GRAB-157	GRAB-161
Total Solids		160.3 (%)	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	GRAB-170	GRAB-172	GRAB-201	GRAB-202	GRAB-203
Total Solids		160.3 (%)	SAMPLE DATE:	08/10/2007	08/10/2007	08/24/2007	08/24/2007	08/24/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	86.8	98.5	78.7	76.2	92.6

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 3 of 11

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	GRAB-204	GRAB-205	GRAB-206	GRAB-207	SS-0075
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/24/2007	08/27/2007	08/27/2007	08/27/2007	07/09/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	91.9	81.7	81	81.2	92.3
Total Solids		160.3 (%)	SAMPLE DATE:	07/09/2007	07/09/2007	07/09/2007	07/09/2007	07/09/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	91.3	93.3	91.3	93.3	93.6
Total Solids		160.3 (%)	SAMPLE DATE:	07/09/2007	07/09/2007	07/09/2007	07/09/2007	07/09/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	95.6	89.6	91.8	75.9	88.1
Total Solids		160.3 (%)	SAMPLE DATE:	07/09/2007	07/09/2007	07/09/2007	07/09/2007	07/09/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	90.6	95.5	95	92.2	95.7
Total Solids		160.3 (%)	SAMPLE DATE:	07/09/2007	07/09/2007	07/09/2007	07/09/2007	07/09/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	93.2	94.3	84	81.3	92.1
Total Solids		160.3 (%)	SAMPLE DATE:					

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 4 of 11

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-0165 07/09/2007	SS-0169 07/09/2007	SS-0175 07/09/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	92.5	93.8	92.6

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	GRAB-030 08/10/2007	GRAB-032 08/10/2007	GRAB-033 08/10/2007	GRAB-036 08/10/2007	GRAB-037 08/10/2007
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<5.5UD	<1.1UD	<1.1UD	<1.1UD	<1.1UD
PCB (Aroclor 1232)	8082	(mg/kg)		<6.5UD	<1.3UD	<1.3UD	<1.3UD	<1.3UD
PCB (Aroclor 1242)	8082	(mg/kg)		<6.0UD	<1.2UD	<1.2UD	<1.2UD	<1.2UD
PCB (Aroclor 1248)	8082	(mg/kg)		<7.0UD	<1.4UD	<1.4UD	<1.4UD	<1.4UD
PCB (Aroclor 1254)	8082	(mg/kg)		<7.5UD	<1.5UD	<1.5UD	<1.5UD	<1.5UD
PCB (Aroclor 1260)	8082	(mg/kg)		<4.4UD	<0.88UD	<0.88UD	<0.88UD	<0.88UD
				150D	62D	10D	27D	35D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	GRAB-038 08/10/2007	GRAB-039 08/10/2007	GRAB-040 08/10/2007	GRAB-041 08/10/2007	GRAB-042 08/10/2007
			SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1016)	8082	(mg/kg)		<1.1UD	<1.1UD	<1.1UD	<1.1UD	<1.1UD
PCB (Aroclor 1221)	8082	(mg/kg)		<1.3UD	<1.3UD	<1.3UD	<1.3UD	<1.3UD
PCB (Aroclor 1232)	8082	(mg/kg)		<1.2UD	<1.2UD	<1.2UD	<1.2UD	<1.2UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 5 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	GRAB-038 08/10/2007	GRAB-039 08/10/2007	GRAB-040 08/10/2007	GRAB-041 08/10/2007	GRAB-042 08/10/2007
PCB (Aroclor 1242)	8082	(mg/kg)	SAMPLE DEPTH (ft@g):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1248)	8082	(mg/kg)		<1.4UD	<1.4UD	<1.4UD	<1.4UD	<1.4UD
PCB (Aroclor 1254)	8082	(mg/kg)		<1.5UD	<1.5UD	<1.5UD	<1.5UD	<1.5UD
PCB (Aroclor 1260)	8082	(mg/kg)		<0.88UD	<0.88UD	<0.88UD	<0.88UD	<0.88UD
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE LOCATION: SAMPLE DATE:	GRAB-043 08/10/2007	GRAB-044 08/10/2007	GRAB-045 08/10/2007	GRAB-046 08/10/2007	GRAB-047 08/10/2007
PCB (Aroclor 1221)	8082	(mg/kg)	SAMPLE DEPTH (ft@g):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1232)	8082	(mg/kg)		<1.1UD	<1.1UD	<1.1UD	<1.1UD	<1.1UD
PCB (Aroclor 1242)	8082	(mg/kg)		<1.3UD	<1.3UD	<1.3UD	<1.3UD	<1.3UD
PCB (Aroclor 1248)	8082	(mg/kg)		<1.2UD	<1.2UD	<1.2UD	<1.2UD	<1.2UD
PCB (Aroclor 1254)	8082	(mg/kg)		<1.4UD	<1.4UD	<1.4UD	<1.4UD	<1.4UD
PCB (Aroclor 1260)	8082	(mg/kg)		<1.5UD	<1.5UD	<1.5UD	<1.5UD	<1.5UD
PCB (Aroclor 1016)	8082	(mg/kg)		<0.88UD	<0.88UD	<0.88UD	<0.88UD	<0.88UD
PCB (Aroclor 1221)	8082	(mg/kg)		18D	57D	54D	25D	64D
PCB (Aroclor 1232)	8082	(mg/kg)	SAMPLE LOCATION: SAMPLE DATE:	GRAB-048 08/10/2007	GRAB-049 08/10/2007	GRAB-057 08/10/2007	GRAB-067 08/10/2007	GRAB-072 08/10/2007
PCB (Aroclor 1242)	8082	(mg/kg)	SAMPLE DEPTH (ft@g):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1248)	8082	(mg/kg)		<1.1UD	>2.2UD	<1.1UD	<5.5UD	<1.1UD
PCB (Aroclor 1254)	8082	(mg/kg)		<1.3UD	>2.6UD	<1.3UD	<6.5UD	<1.3UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 6 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	GRAB-048	GRAB-049	GRAB-057	GRAB-067	GRAB-072
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007

PCB (Aroclor 1222)	8082	(mg/kg)	SAMPLE DEPTH (ft@g):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1242)	8082	(mg/kg)		<1.2UD	>2.4UD	<1.2UD	<6.0UD	<1.2UD
PCB (Aroclor 1248)	8082	(mg/kg)		<1.4UD	>2.8UD	<1.4UD	>7.0UD	<1.4UD
PCB (Aroclor 1254)	8082	(mg/kg)		<1.5UD	>3.0UD	<1.5UD	<7.5UD	<1.5UD
PCB (Aroclor 1260)	8082	(mg/kg)		<0.88UD	<1.8UD	<0.88UD	<4.4UD	<0.88UD
			SAMPLE LOCATION:	GRAB-073	GRAB-074	GRAB-083	GRAB-087	GRAB-090
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (ft@g):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<1.1UD	<1.1UD	<1.1UD	<1.1UD	<1.1UD
PCB (Aroclor 1222)	8082	(mg/kg)		<1.3UD	<1.3UD	<1.3UD	<1.3UD	<1.3UD
PCB (Aroclor 1242)	8082	(mg/kg)		<1.2UD	<1.2UD	<1.2UD	<1.2UD	<1.2UD
PCB (Aroclor 1248)	8082	(mg/kg)		<1.4UD	<1.4UD	<1.4UD	<1.4UD	<1.4UD
PCB (Aroclor 1254)	8082	(mg/kg)		<1.5UD	<1.5UD	<1.5UD	<1.5UD	<1.5UD
PCB (Aroclor 1260)	8082	(mg/kg)		<0.88UD	<0.88UD	<0.88UD	<0.88UD	<0.88UD
			SAMPLE LOCATION:	GRAB-092	GRAB-094	GRAB-095	GRAB-096	GRAB-097
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (ft@g):	0.00	0.00	0.00	0.00	0.00
				<0.11UD	<1.1UD	<1.1UD	<1.1UD	<1.1UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 7 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	GRAB-092	GRAB-094	GRAB-095	GRAB-096	GRAB-097
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	GRAB-092	GRAB-094	GRAB-095	GRAB-096	GRAB-097
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007
PCB (Aroclor 1221)	8082	(mg/kg)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1222)	8082	(mg/kg)		<0.13UD	<1.3UD	<1.3UD	<1.3UD	<1.3UD
PCB (Aroclor 1242)	8082	(mg/kg)		<0.12UD	<1.2UD	<1.2UD	<1.2UD	<1.2UD
PCB (Aroclor 1248)	8082	(mg/kg)		<0.14UD	<1.4UD	<1.4UD	<1.4UD	<1.4UD
PCB (Aroclor 1254)	8082	(mg/kg)		1.9D	<1.5UD	<1.5UD	<1.5UD	<1.5UD
PCB (Aroclor 1260)	8082	(mg/kg)		<0.088UD	<0.88UD	<0.88UD	<0.88UD	<0.88UD
				3.7D	6.4D	15D	22D	10D
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE LOCATION:	GRAB-098	GRAB-110	GRAB-153	GRAB-157	GRAB-161
PCB (Aroclor 1221)	8082	(mg/kg)	SAMPLE DATE:	08/10/2007	08/10/2007	08/10/2007	08/10/2007	08/10/2007
PCB (Aroclor 1232)	8082	(mg/kg)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1242)	8082	(mg/kg)		<1.1UD	<1.1UD	<5.5UD	<11UD	<55UD
PCB (Aroclor 1248)	8082	(mg/kg)		<1.3UD	<1.3UD	<6.5UD	<13UD	<65UD
PCB (Aroclor 1254)	8082	(mg/kg)		<1.2UD	<1.2UD	<6.0UD	<12UD	<60UD
PCB (Aroclor 1260)	8082	(mg/kg)		<1.4UD	<1.4UD	<7.0UD	<14UD	<70UD
				<1.5UD	<1.5UD	<7.5UD	<15UD	<75UD
				<0.88UD	<0.88UD	<4.4UD	<8.8UD	<44UD
				14D	20D	150D	390D	1200D
			SAMPLE LOCATION:	GRAB-170	GRAB-172	GRAB-201	GRAB-202	GRAB-203
			SAMPLE DATE:	08/10/2007	08/10/2007	08/24/2007	08/24/2007	08/24/2007
			SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 8 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	GRAB-170 08/10/2007	GRAB-172 08/10/2007	GRAB-201 08/24/2007	GRAB-202 08/24/2007	GRAB-203 08/24/2007
SAMPLE DEPTH (ft@g):								
PCB (Aroclor 1016)	8082	(mg/kg)		<1.1UD	<1.1UD	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<1.3UD	<1.3UD	<32UD	<9.9UD	<2500UD
PCB (Aroclor 1232)	8082	(mg/kg)		<1.2UD	<1.2UD	<32UD	<9.9UD	<2500UD
PCB (Aroclor 1242)	8082	(mg/kg)		<1.4UD	<1.4UD	<32UD	<9.9UD	<2500UD
PCB (Aroclor 1248)	8082	(mg/kg)		<1.5UD	<1.5UD	<32UD	<9.9UD	<2500UD
PCB (Aroclor 1254)	8082	(mg/kg)		<0.88UD	<0.88UD	<32UD	<9.9UD	<2500UD
PCB (Aroclor 1260)	8082	(mg/kg)		62D	58D	61D	11D	3100D
SAMPLE DEPTH (ft@g):								
PCB (Aroclor 1016)	8082	(mg/kg)		0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<640UD	<5.0UD	<5.0UD	<25UD	<5.0UD
PCB (Aroclor 1232)	8082	(mg/kg)		<640UD	<5.0UD	<5.0UD	<25UD	<5.0UD
PCB (Aroclor 1242)	8082	(mg/kg)		<640UD	<5.0UD	<5.0UD	<25UD	<5.0UD
PCB (Aroclor 1248)	8082	(mg/kg)		<640UD	<5.0UD	<5.0UD	<25UD	<5.0UD
PCB (Aroclor 1254)	8082	(mg/kg)		<640UD	<5.0UD	<5.0UD	<25UD	<5.0UD
PCB (Aroclor 1260)	8082	(mg/kg)		1500D	20D	12D	68D	15D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 9 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-0084	SS-0088	SS-0100	SS-0101	SS-0102
SAMPLE DEPTH (ft@g):									
PCB (Aroclor 1016)	8082	(mg/kg)		0.00	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<5.0UD	<5.0UD	<1.0UD	<5.0UD	<4.1UD	<4.1UD
PCB (Aroclor 1232)	8082	(mg/kg)		<5.0UD	<5.0UD	<1.0UD	<5.0UD	<4.1UD	<4.1UD
PCB (Aroclor 1242)	8082	(mg/kg)		<5.0UD	<5.0UD	<1.0UD	<5.0UD	<4.1UD	<4.1UD
PCB (Aroclor 1248)	8082	(mg/kg)		<5.0UD	<5.0UD	<1.0UD	<5.0UD	<4.1UD	<4.1UD
PCB (Aroclor 1254)	8082	(mg/kg)		<5.0UD	<5.0UD	<1.0UD	<5.0UD	<4.1UD	<4.1UD
PCB (Aroclor 1260)	8082	(mg/kg)		17D	26D	2.5D	13D	9.3D	
SAMPLE DEPTH (ft@g):									
PCB (Aroclor 1016)	8082	(mg/kg)		0.00	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<5.0UD	<5.0UD	<5.0UD	<5.0UD	<5.0UD	<5.0UD
PCB (Aroclor 1232)	8082	(mg/kg)		<5.0UD	<5.0UD	<5.0UD	<5.0UD	<5.0UD	<5.0UD
PCB (Aroclor 1242)	8082	(mg/kg)		<5.0UD	<5.0UD	<5.0UD	<5.0UD	<5.0UD	<5.0UD
PCB (Aroclor 1248)	8082	(mg/kg)		<5.0UD	<5.0UD	<5.0UD	<5.0UD	<5.0UD	<5.0UD
PCB (Aroclor 1254)	8082	(mg/kg)		1.2D	10D	11D	12D	8.6D	
PCB (Aroclor 1260)	8082	(mg/kg)							

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 10 of 11

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-0108	SS-0109	SS-0111	SS-0112	SS-0117
SAMPLE DEPTH (ft:kg)									
PCB (Aroclor 1016)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1254)	8082	(mg/kg)	1.3D	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1260)	8082	(mg/kg)	1.7D	4.4D	16D	85D	34D		
SAMPLE DEPTH (ft:kg)									
PCB (Aroclor 1016)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.50UD	<1.0UD	<5.0UD	<1.0UD	<5.0UD	<500UD	<10UD
PCB (Aroclor 1254)	8082	(mg/kg)	19D	15D	2.4D	6.2D			
PCB (Aroclor 1260)	8082	(mg/kg)							

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-0165	SS-0169	SS-0175
			SAMPLE DEPTH (ft@g)				
PCB (Aroclor 1016)	8082	(mg/kg)	<10UD	<10UD	<10UD	<5.0UD	<5.0UD
PCB (Aroclor 1221)	8082	(mg/kg)	<10UD	<10UD	<10UD	<5.0UD	<5.0UD
PCB (Aroclor 1232)	8082	(mg/kg)	<10UD	<10UD	<10UD	<5.0UD	<5.0UD
PCB (Aroclor 1242)	8082	(mg/kg)	<10UD	<10UD	<10UD	<5.0UD	<5.0UD
PCB (Aroclor 1248)	8082	(mg/kg)	<10UD	<10UD	<10UD	<5.0UD	<5.0UD
PCB (Aroclor 1244)	8082	(mg/kg)	<10UD	<10UD	<10UD	<5.0UD	<5.0UD
PCB (Aroclor 1260)	8082	(mg/kg)	31D	37D	23DE		

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 9

## ANALYTICAL CHEMISTRY REPORT

MATRIX: SOIL

### METHODS:

- EPA Method 160.3 - Total Residue by Drying Oven
- EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry
- EPA Method 7471A - Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)
- EPA Method 7841 - Thallium: AA, Furnace Technique
- EPA Method 8082 - Polychlorinated Biphenyls (PCBs)
- EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
- EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	HYD-001
			SAMPLE DATE:	10/04/2005
			SAMPLE DEPTH (ft@g)	17.00
Total Solids		160.3 (%)		91.3

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	HYD-001
			SAMPLE DATE:	10/04/2005
			SAMPLE DEPTH (ft@g)	17.00

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	HYD-001
			SAMPLE DATE:	10/04/2005
			SAMPLE DEPTH (ft@g)	17.00

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	HYD-001
			SAMPLE DATE:	10/04/2005
			SAMPLE DEPTH (ft@g)	17.00

Project No.:006651  
Page 1 of 9

Project No.:006651  
Page 1 of 9

Project No.:006651  
Page 1 of 9

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651

Page 2 of 9

**EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (ft@g)	
Arsenic	6010B	(mg/kg)	17.00	
Copper	6010B	(mg/kg)	<8.0U	
Lead	6010B	(mg/kg)	2.6	
Antimony	6010B	(mg/kg)	<5.0U	
Beryllium	6010B	(mg/kg)	<5.0U	
Cadmium	6010B	(mg/kg)	<0.20U	
Chromium	6010B	(mg/kg)	<1.0U	
Nickel	6010B	(mg/kg)	5.2	
Selenium	6010B	(mg/kg)	5.1	
Silver	6010B	(mg/kg)	<12U	
Zinc	6010B	(mg/kg)	<2.5U	
			12	

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (ft@g)	
Arsenic	6010B	(mg/kg)	17.00	
Copper	6010B	(mg/kg)	<8.0U	
Lead	6010B	(mg/kg)	2.6	
Antimony	6010B	(mg/kg)	<5.0U	
Beryllium	6010B	(mg/kg)	<5.0U	
Cadmium	6010B	(mg/kg)	<0.20U	
Chromium	6010B	(mg/kg)	<1.0U	
Nickel	6010B	(mg/kg)	5.2	
Selenium	6010B	(mg/kg)	5.1	
Silver	6010B	(mg/kg)	<12U	
Zinc	6010B	(mg/kg)	<2.5U	
			12	

**EPA Method 7471A - Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (ft@g)	
Mercury	7471A	(mg/kg)	17.00	
			<0.100U	

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (ft@g)	
Mercury	7471A	(mg/kg)	17.00	
			<0.100U	

**EPA Method 7441 - Thallium: AA, Furnace Technique**

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental

Professional Services Group, Inc.

ANALYTICAL CHEMISTRY REPORT

## EPA Method 7841 - Thallium: AA, Furnace Technique

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
Thallium		7841 (mg/kg)	SAMPLE DEPTH (fbg):	17.00
				<0.10U

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (fbg):	17.00
PCB (Aroclor 1221)	8082	(mg/kg)		<0.12U
PCB (Aroclor 1232)	8082	(mg/kg)		<0.12U
PCB (Aroclor 1242)	8082	(mg/kg)		<0.12U
PCB (Aroclor 1248)	8082	(mg/kg)		<0.12U
PCB (Aroclor 1254)	8082	(mg/kg)		<0.12U
PCB (Aroclor 1260)	8082	(mg/kg)		<0.12U
PCB (Total Aroclors)	8082	(ug/kg)		<120U

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (fbg):	17.00

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651

Page 4 of 9

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (ft@e)	
1,1,1-trichloroethane	8260B	(ug/kg)		17.00
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)		<100UD
1,1,2-Trichloroethane	8260B	(ug/kg)		<100UD
1,1-Dichloroethane	8260B	(ug/kg)		<100UD
1,1-Dichloroethylene	8260B	(ug/kg)		<100UD
1,2-Dichloroethane	8260B	(ug/kg)		<100UD
1,2-Dichloropropane	8260B	(ug/kg)		<100UD
2-Hexanone	8260B	(ug/kg)		<500UD
Acetone	8260B	(ug/kg)		<5000UD
Benzene	8260B	(ug/kg)		<50UD
Bromodichloromethane	8260B	(ug/kg)		<50UD
Bromoform	8260B	(ug/kg)		<100UD
Carbon disulfide	8260B	(ug/kg)		<750UD
Carbon tetrachloride	8260B	(ug/kg)		<100UD
Chlorobenzene	8260B	(ug/kg)		<100UD
Chloroethane	8260B	(ug/kg)		<200UD
Chloroform	8260B	(ug/kg)		<100UD
cis-1,2-Dichloroethylene	8260B	(ug/kg)		<100UD
cis-1,3-Dichloropropene	8260B	(ug/kg)		<100UD
Dibromochloromethane	8260B	(ug/kg)		<100UD
Ethylbenzene	8260B	(ug/kg)		<100UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental

Professional Services Group, Inc.

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (fbg)	17.00
Methyl bromide	8260B	(ug/kg)		<150UD
Methyl chloride	8260B	(ug/kg)		<500UD
Methyl ethyl ketone	8260B	(ug/kg)		<5000UD
Methyl isobutylketone (MIBK)	8260B	(ug/kg)		<500UD
Methyl tert-butyl ether	8260B	(ug/kg)		<100UD
Methylene chloride	8260B	(ug/kg)		<1500UD
Styrene	8260B	(ug/kg)		<100UD
Tetrachloroethylene	8260B	(ug/kg)		<50UD
Toluene	8260B	(ug/kg)		<100UD
trans-1,2-Di-chloroethylene	8260B	(ug/kg)		<100UD
trans-1,3-Dichloropropene	8260B	(ug/kg)		<100UD
Trichloroethylene	8260B	(ug/kg)		<50UD
Trichlorofluoromethane	8260B	(ug/kg)		<100UD
Vinyl chloride	8260B	(ug/kg)		<100UD
Xylene (total)	8260B	(ug/kg)		<300UD

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (fbg)	17.00

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 6 of 9

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (ft@e)	
Benz(a)anthracene	8270D	(ug/kg)	>2500UD	
Benz(a)pyrene	8270D	(ug/kg)	>2500UD	
Benz(b)fluoranthene	8270D	(ug/kg)	>2500UD	
Dibenz(a,h)anthracene	8270D	(ug/kg)	>2500UD	
Naphthalene	8270D	(ug/kg)	>2500UD	
1,2,4-Trichlorobenzene	8270D	(ug/kg)	>2500UD	
2,4,5-Trichlorophenol	8270D	(ug/kg)	<12000UD	
2,4,6-Trichlorophenol	8270D	(ug/kg)	>2500UD	
2,4-Dichlorophenol	8270D	(ug/kg)	>2500UD	
2,4-Dimethylphenol	8270D	(ug/kg)	>2500UD	
2,4-Dinitrophenol	8270D	(ug/kg)	<12000UD	
2,4-Dinitrotoluene	8270D	(ug/kg)	>2500UD	
2,6-Dinitrotoluene	8270D	(ug/kg)	>2500UD	
2-Chloronaphthalene	8270D	(ug/kg)	>2500UD	
2-Chlorophenol	8270D	(ug/kg)	>2500UD	
2-Methylnaphthalene	8270D	(ug/kg)	>2500UD	
3,3-Dichlorobenzidine	8270D	(ug/kg)	<12000UD	
4,6-Dinitro-o-cresol	8270D	(ug/kg)	<12000UD	
4-Bromophenyl phenyl ether	8270D	(ug/kg)	>2500UD	
4-Chlorophenyl phenyl ether	8270D	(ug/kg)	>2500UD	
Acenaphthene	8270D	(ug/kg)	4200D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 7 of 9

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (ft@e)	17.00
Acenaphthylene	8270D	(ug/kg)	>2500UD	
Aniline	8270D	(ug/kg)	>2500UD	
Anthracene	8270D	(ug/kg)	>2500UD	
Benzog(ghi)perylene	8270D	(ug/kg)	>2500UD	
Benzo(k)fluoranthene	8270D	(ug/kg)	>2500UD	
Benzoic acid	8270D	(ug/kg)	<12000UD	
Benzyl alcohol	8270D	(ug/kg)	>2500UD	
Bis(2-chloroethoxy)methane	8270D	(ug/kg)	>2500UD	
Bis(2-chloroethyl)ether	8270D	(ug/kg)	>2500UD	
Bis(2-chloroisopropyl)ether	8270D	(ug/kg)	>2500UD	
Bis(2-ethylhexyl)phthalate(BEHP)	8270D	(ug/kg)	<8200UD	
Butylbenzylphthalate	8270D	(ug/kg)	>2500UD	
Chrysene	8270D	(ug/kg)	3900D	
Dibenzofuran	8270D	(ug/kg)	2800D	
Diethyl phthalate	8270D	(ug/kg)	>2500UD	
Dimethyl phthalate	8270D	(ug/kg)	>2500UD	
Di-n-butyl phthalate	8270D	(ug/kg)	<8200UD	
Di-n-octyl phthalate	8270D	(ug/kg)	>2500UD	
Diphenylamine	8270D	(ug/kg)	>2500UD	
Fluoranthene	8270D	(ug/kg)	>2500UD	
Fluorene	8270D	(ug/kg)	7200D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 8 of 9

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (ft@e)	
Hexachlorobenzene	8270D	(ug/kg)		17.00
Hexachlorobutadiene	8270D	(ug/kg)	>2500UD	
Hexachlorocyclopentadiene	8270D	(ug/kg)	>2500UD	
Hexachloroethane	8270D	(ug/kg)	>2500UD	
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	>2500UD	
Isophorone	8270D	(ug/kg)	>2500UD	
m-Cresol	8270D	(ug/kg)	>2500UD	
m-Dichlorobenzene	8270D	(ug/kg)	>2500UD	
m-Nitroaniline	8270D	(ug/kg)	<12000UD	
Nitrobenzene	8270D	(ug/kg)	>2500UD	
N-Nitrosodipropylamine	8270D	(ug/kg)	>2500UD	
n-Tetratetraconane	8270D	(ug/kg)	29000DN	
o-Cresol	8270D	(ug/kg)	>2500UD	
o-Dichlorobenzene	8270D	(ug/kg)	>2500UD	
o-Nitroaniline	8270D	(ug/kg)	<12000UD	
o-Nitrophenol	8270D	(ug/kg)	>2500UD	
p-Chloroaniline	8270D	(ug/kg)	>2500UD	
p-Chloro-m-cresol	8270D	(ug/kg)	>2500UD	
PCP	8270D	(ug/kg)	<12000UD	
p-Dichlorobenzene	8270D	(ug/kg)	>2500UD	
Phenanthrene	8270D	(ug/kg)	15000D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651

Page 9 of 9

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:
			SAMPLE DEPTH (ft@e)	
Phenol	8270D	(ug/kg)	>2500UD	17.00
p-Nitroaniline	8270D	(ug/kg)	<12000UD	
p-Nitrophenol	8270D	(ug/kg)	<12000UD	
Pyrene	8270D	(ug/kg)	4600D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental  
Professional Services Group, Inc.

Page 1 of 20

## ANALYTICAL CHEMISTRY REPORT

### MATRIX: WATER

#### METHODS:

- EPA Method 200.8 - Trace Elements by ICP/Mass Spectrometry
- EPA Method 624 - Purge-and-Trap Method for Purgeable Organics (Halocarbons) with GC/MS
- EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS
- EPA Method 7196A - Chromium, Hexavalent: AA, Colorimetric
- EPA Method 7470A - Mercury by Manual Cold-Vapor Technique
- EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 200.8 - Trace Elements by ICP/Mass Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-002 05/12/2006	MW-002 08/31/2005	MW-002 05/12/2006	MW-003 08/31/2005
Antimony (Dissolved)	200.8	(ug/l)		5	---	2.7	---	1.3
Arsenic (Dissolved)	200.8	(ug/l)		1	---	62	---	0.52
Beryllium (Dissolved)	200.8	(ug/l)		<0.56U	---	<0.56U	---	<0.56U
Cadmium (Dissolved)	200.8	(ug/l)		<0.55U	---	<0.55U	---	<0.55U
Chromium (Dissolved)	200.8	(ug/l)		<0.76U	---	<0.76U	---	0.87
Copper (Dissolved)	200.8	(ug/l)		7.3	---	2.3	---	2.8
Lead (Dissolved)	200.8	(ug/l)		<0.36U	---	0.38	---	0.46
Nickel (Dissolved)	200.8	(ug/l)		4.3	---	8.1	---	4.8

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 200.8 - Trace Elements by ICP/Mass Spectrometry

Page 2 of 20

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-002 05/12/2006	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-006 05/12/2006
Selenium (Dissolved)	200.8	(ug/l)		2.2	---	11	---	3.5	---
Silver (Dissolved)	200.8	(ug/l)		<0.36U	---	<0.36U	---	<0.36U	---
Thallium (Dissolved)	200.8	(ug/l)		<0.20U	---	<0.20U	---	<0.20U	---
Zinc (Dissolved)	200.8	(ug/l)		<10U	---	<10U	---	<10U	---
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-006 09/16/2005	MW-007 09/16/2005	MW-008 05/12/2006
Antimony (Dissolved)	200.8	(ug/l)		---	0.46	1.4	---	---	---
Arsenic (Dissolved)	200.8	(ug/l)		---	1.8	<0.50U	---	---	---
Beryllium (Dissolved)	200.8	(ug/l)		---	<0.56U	<0.56U	---	---	---
Cadmium (Dissolved)	200.8	(ug/l)		---	<0.55U	<0.55U	---	---	---
Chromium (Dissolved)	200.8	(ug/l)		---	<0.76U	<0.76U	1	1	---
Copper (Dissolved)	200.8	(ug/l)		---	1.6	3.4	---	---	---
Lead (Dissolved)	200.8	(ug/l)		---	1	1.2	---	---	---
Nickel (Dissolved)	200.8	(ug/l)		---	3.5	0.9	---	---	---
Selenium (Dissolved)	200.8	(ug/l)		---	<2.0U	<2.0U	---	---	---
Silver (Dissolved)	200.8	(ug/l)		---	<0.36U	<0.36U	---	---	---
Thallium (Dissolved)	200.8	(ug/l)		---	<0.20U	<0.20U	---	---	---
Zinc (Dissolved)	200.8	(ug/l)		---	<10U	<10U	---	---	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 200.8 - Trace Elements by ICP/Mass Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-006 08/31/2005	MW-006 05/12/2006	MW-007 07/17/2007
Antimony (Dissolved)	200.8	(ug/l)		0.69	---	---
Arsenic (Dissolved)	200.8	(ug/l)		2.3	---	---
Beryllium (Dissolved)	200.8	(ug/l)		<0.56U	---	---
Cadmium (Dissolved)	200.8	(ug/l)		<0.55U	---	---
Chromium (Dissolved)	200.8	(ug/l)		<0.76U	---	---
Copper (Dissolved)	200.8	(ug/l)		4.5	---	---
Lead (Dissolved)	200.8	(ug/l)		0.38	---	---
Nickel (Dissolved)	200.8	(ug/l)		1.8	---	---
Selenium (Dissolved)	200.8	(ug/l)		<2.0U	---	---
Silver (Dissolved)	200.8	(ug/l)		<0.36U	---	---
Thallium (Dissolved)	200.8	(ug/l)		<0.20U	---	---
Zinc (Dissolved)	200.8	(ug/l)		<10U	---	---

## EPA Method 624 - Purge-and-Trap Method for Purgeable Organics (Haloarcarbons) with GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-001 05/12/2006	MW-002 08/31/2005	MW-002 05/12/2006	MW-003 08/31/2005
1,1,1-Trichloroethane	624	(ug/l)		<2.0U	---	<2.0U	---	<2.0U
1,1,2,2-Tetrachloroethane	624	(ug/l)		<1.0U	---	<1.0U	---	<1.0U
1,1,2-Trichloroethane	624	(ug/l)		<2.0U	---	<2.0U	---	<2.0U
1,1-Dichloroethane	624	(ug/l)		<2.0U	---	<2.0U	---	<2.0U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 4 of 20

## EPA Method 624 - Purge-and-Trap Method for Pugetable Organics (Haloarbons) with GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	MW-001	MW-002	MW-003
			SAMPLE DATE:	08/31/2005	05/12/2006	08/31/2005
1,1-Dichloroethylene	624	(ug/l)		<2.0U	---	<2.0U
1,2-Dichloroethane	624	(ug/l)		<2.0U	---	<2.0U
1,2-Dichloropropane	624	(ug/l)		<1.0U	---	<1.0U
2-Hexanone	624	(ug/l)		<10U	---	<10U
Acetone	624	(ug/l)		<50U	---	<50U
Benzene	624	(ug/l)		<1.0U	---	<1.0U
Bromodichloromethane	624	(ug/l)		<1.0U	---	<1.0U
Bromoform	624	(ug/l)		<2.0U	---	<2.0U
Carbon disulfide	624	(ug/l)		<2.0U	---	<2.0U
Carbon tetrachloride	624	(ug/l)		<2.0U	---	<2.0U
Chlorobenzene	624	(ug/l)		8.7	---	8.5
Chloroethane	624	(ug/l)		<2.0U	---	<2.0U
Chloroform	624	(ug/l)		<2.0U	---	<2.0U
cis-1,2-Dichloroethylene	624	(ug/l)		<2.0U	---	<2.0U
cis-1,3-Dichloropropene	624	(ug/l)		<2.0U	---	<2.0U
Dibromochloromethane	624	(ug/l)		<2.0U	---	<2.0U
Ethylbenzene	624	(ug/l)		<2.0U	---	<2.0U
Methyl bromide	624	(ug/l)		<2.0U	---	<2.0U
Methyl chloride	624	(ug/l)		<10U	---	<10U
Methyl ethyl ketone	624	(ug/l)		<10U	---	<10U
Methyl isobutylketone (MIBK)	624	(ug/l)		<10U	---	<10U
Methyl tert-butyl ether	624	(ug/l)		<2.0U	---	<2.0U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 5 of 20

## EPA Method 624 - Purge-and-Trap Method for Pugetable Organics (Haloarbons) with GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-001 05/12/2006	MW-002 08/31/2005	MW-002 05/12/2006	MW-003 08/31/2005
Methylene chloride	624	(ug/l)		<2.0U	---	<2.0U	---	<2.0U
Styrene	624	(ug/l)		<2.0U	---	<2.0U	---	<2.0U
Tetrachloroethylene	624	(ug/l)		<1.0U	---	<1.0U	---	<1.0U
Toluene	624	(ug/l)		<2.0U	---	2.6	---	<2.0U
Total TICS - 624	624	(ug/l)		160	---	U	---	20
trans-1,2-Di-chloroethylene	624	(ug/l)		<2.0U	---	<2.0U	---	<2.0U
trans-1,3-Dichloropropene	624	(ug/l)		<2.0U	---	<2.0U	---	<2.0U
Trichloroethylene	624	(ug/l)		<1.0U	---	<1.0U	---	<1.0U
Trichlorofluoromethane	624	(ug/l)		<2.0U	---	<2.0U	---	<2.0U
Vinyl chloride	624	(ug/l)		<2.0U	---	<2.0U	---	<2.0U
Xylene (total)	624	(ug/l)		<6.0U	---	<6.0U	---	<6.0U
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-005 09/16/2005	MW-005 05/12/2006
1,1,1-trichloroethane	624	(ug/l)		---	<2.0U	<2.0U	---	---
1,1,2,2-Tetrachloroethane	624	(ug/l)		---	<1.0U	<1.0U	---	---
1,1,2-Trichloroethane	624	(ug/l)		---	<2.0U	<2.0U	---	---
1,1-Dichloroethane	624	(ug/l)		---	<2.0U	<2.0U	---	---
1,1-Dichloroethylene	624	(ug/l)		---	<2.0U	<2.0U	---	---
1,2-Dichloroethane	624	(ug/l)		---	<2.0U	<2.0U	---	---
1,2-Dichloropropane	624	(ug/l)		---	<1.0U	<1.0U	---	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 624 - Purge-and-Trap Method for Pugetable Organics (Haloarbons) with GC/MS

Page 6 of 20

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-005 09/16/2005	MW-005 05/12/2006
2-Hexanone	624	(ug/l)		---	<10U	<10U	---	---
Acetone	624	(ug/l)		---	<50U	<50U	---	---
Benzene	624	(ug/l)		---	30	<1.0U	---	---
Benzene, 1,2,4-trimethyl	624	(ug/l)		---	640N	---	---	---
Benzene, 1,3,5-trimethyl-	624	(ug/l)		---	130N	---	---	---
Bromodichloromethane	624	(ug/l)		---	<1.0U	<1.0U	---	---
Bromoform	624	(ug/l)		---	<2.0U	<2.0U	---	---
Carbon disulfide	624	(ug/l)		---	<2.0U	<2.0U	---	---
Carbon tetrachloride	624	(ug/l)		---	<2.0U	<2.0U	---	---
Chlorobenzene	624	(ug/l)		---	<2.0U	<2.0U	---	---
Chloroethane	624	(ug/l)		---	<2.0U	<2.0U	---	---
Chloroform	624	(ug/l)		---	<2.0U	<2.0U	---	---
cis-1,2-Dichloroethylene	624	(ug/l)		---	<2.0U	<2.0U	---	---
cis-1,3-Dichloropropene	624	(ug/l)		---	<2.0U	<2.0U	---	---
Dibromochloromethane	624	(ug/l)		---	<2.0U	<2.0U	---	---
Ethylbenzene	624	(ug/l)		---	330	<2.0U	---	---
Methyl bromide	624	(ug/l)		---	<2.0U	<2.0U	---	---
Methyl chloride	624	(ug/l)		---	<10U	<10U	---	---
Methyl ethyl ketone	624	(ug/l)		---	<10U	<10U	---	---
Methyl isobutylketone (MIBK)	624	(ug/l)		---	<10U	<10U	---	---
Methyl tert-butyl ether	624	(ug/l)		---	<2.0U	<2.0U	---	---
Methylene chloride	624	(ug/l)		---	<2.0U	<2.0U	---	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 7 of 20

## EPA Method 624 - Purge-and-Trap Method for Pugetable Organics (Haloarbons) with GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-005 09/16/2005	MW-005 05/12/2006
Styrene	624	(ug/l)		---	<2.0U	<2.0U	---	---
Tetrachloroethylene	624	(ug/l)		---	<1.0U	<1.0U	---	---
Toluene	624	(ug/l)		---	5.2	<2.0U	---	---
Total TICS - 624	624	(ug/l)		---	2240	U	---	---
trans-1,2-Di-chloroethylene	624	(ug/l)		---	<2.0U	<2.0U	---	---
trans-1,3-Dichloropropene	624	(ug/l)		---	<2.0U	<2.0U	---	---
Trichloroethylene	624	(ug/l)		---	<1.0U	<1.0U	---	---
Trichlorofluoromethane	624	(ug/l)		---	<2.0U	<2.0U	---	---
Vinyl chloride	624	(ug/l)		---	<2.0U	<2.0U	---	---
Xylene (total)	624	(ug/l)		---	1100D	<6.0U	---	---
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-006 08/31/2005	MW-006 05/12/2006	MW-007 07/17/2007		
1,1,1-trichloroethane	624	(ug/l)		<2.0U	---	---		
1,1,2,2-Tetrachloroethane	624	(ug/l)		<1.0U	---	---		
1,1,2-Trichloroethane	624	(ug/l)		<2.0U	---	---		
1,1-Dichloroethane	624	(ug/l)		<2.0U	---	---		
1,1-Dichloroethylene	624	(ug/l)		<2.0U	---	---		
1,2-Dichloroethane	624	(ug/l)		<2.0U	---	---		
1,2-Dichloropropane	624	(ug/l)		<1.0U	---	---		
2-Hexanone	624	(ug/l)		<10U	---	---		

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 8 of 20

## EPA Method 624 - Purge-and-Trap Method for Pugetable Organics (Haloarbons) with GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-006 08/31/2005	MW-006 05/12/2006	MW-007 07/17/2007
Acetone	624	(ug/l)		<50U	---	---
Benzene	624	(ug/l)		<1.0U	---	---
Bromodichloromethane	624	(ug/l)		<1.0U	---	---
Bromoform	624	(ug/l)		<2.0U	---	---
Carbon disulfide	624	(ug/l)		<2.0U	---	---
Carbon tetrachloride	624	(ug/l)		<2.0U	---	---
Chlorobenzene	624	(ug/l)		<2.0U	---	---
Chloroethane	624	(ug/l)		<2.0U	---	---
Chloroform	624	(ug/l)		<2.0U	---	---
cis-1,2-Dichloroethylene	624	(ug/l)		<2.0U	---	---
cis-1,3-Dichloropropene	624	(ug/l)		<2.0U	---	---
Dibromochloromethane	624	(ug/l)		<2.0U	---	---
Ethylbenzene	624	(ug/l)		<2.0U	---	---
Methyl bromide	624	(ug/l)		<2.0U	---	---
Methyl chloride	624	(ug/l)		<10U	---	---
Methyl ethyl ketone	624	(ug/l)		<10U	---	---
Methyl isobutylketone (MIBK)	624	(ug/l)		<10U	---	---
Methyl tert-butyl ether	624	(ug/l)		<2.0U	---	---
Methylene chloride	624	(ug/l)		<2.0U	---	---
Styrene	624	(ug/l)		<2.0U	---	---
Tetrachloroethylene	624	(ug/l)		<1.0U	---	---
Toluene	624	(ug/l)		<2.0U	---	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 9 of 20

**EPA Method 624 - Purge-and-Trap Method for Pugetable Organics (Haloarbons) with GC/MS**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	MW-006	MW-006	MW-007
Total TICs - 624	624	(ug/l)	U		---	---	---
trans-1,2-Di-chloroethylene	624	(ug/l)	>2.0U		---	---	---
trans-1,3-Dichloropropene	624	(ug/l)	>2.0U		---	---	---
Trichloroethylene	624	(ug/l)	<1.0U		---	---	---
Trichlorofluoromethane	624	(ug/l)	>2.0U		---	---	---
Vinyl chloride	624	(ug/l)	>2.0U		---	---	---
Xylene (total)	624	(ug/l)	<6.0U		---	---	---

**EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	MW-001	MW-002	MW-003
1,2,4-Trichlorobenzene	625	(ug/l)	23		<2.0U	---	4.8
2,4-Dinitrotoluene	625	(ug/l)	>2.0U		<2.0U	---	<2.0U
2,6-Dinitrotoluene	625	(ug/l)	>2.0U		<2.0U	---	<2.0U
2-Chloronaphthalene	625	(ug/l)	>2.0U		<2.0U	---	<2.0U
2-Methylnaphthalene	625	(ug/l)	>2.0U		<2.0U	---	<2.0U
3,3-Dichlorobenzidine	625	(ug/l)	>2.0U		<2.0U	---	<2.0U
4-Bromophenyl phenyl ether	625	(ug/l)	>2.0U		<2.0U	---	<2.0U
4-Chlorophenyl phenyl ether	625	(ug/l)	>2.0U		<2.0U	---	<2.0U
Acenaphthene	625	(ug/l)	>2.0U		<2.0U	---	<2.0U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.:006651

Page 10 of 20

## EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	MW-001	MW-002	MW-003
			SAMPLE DATE:	08/31/2005	05/12/2006	08/31/2005
Acenaphthylene	625	(ug/l)		<2.0U	---	<2.0U
Aniline	625	(ug/l)		<2.0U	---	<2.0U
Anthracene	625	(ug/l)		<2.0U	---	<2.0U
Benzidine	625	(ug/l)		<10U	---	<10U
Benzo(a)anthracene	625	(ug/l)		<0.20U	---	<0.20U
Benzo(a)pyrene	625	(ug/l)		<0.20U	---	<0.20U
Benzo(b)fluoranthene	625	(ug/l)		<0.90U	---	<0.90U
Benzo(ghi)perylene	625	(ug/l)		<0.26U	---	<0.26U
Benzo(k)fluoranthene	625	(ug/l)		<0.55U	---	<0.55U
Benzyl alcohol	625	(ug/l)		<2.0U	---	<2.0U
Bis(2-chloroethoxy)methane	625	(ug/l)		<2.0U	---	<2.0U
Bis(2-chloroethyl)ether	625	(ug/l)		<0.55U	---	<0.55U
Bis(2-chloroisopropyl)ether	625	(ug/l)		<2.0U	---	<2.0U
Bis(2-ethylhexyl)phthalate(BEHP)	625	(ug/l)		<6.0U	---	<6.0U
Butylbenzylphthalate	625	(ug/l)		<2.0U	---	<2.0U
Chrysene	625	(ug/l)		<1.8U	---	<1.8U
Dibenz(a,h)anthracene	625	(ug/l)		<0.20U	---	<0.20U
Dibenzofuran	625	(ug/l)		<2.0U	---	<2.0U
Diethyl phthalate	625	(ug/l)		<2.0U	---	<2.0U
Dimethyl phthalate	625	(ug/l)		<2.0U	---	<2.0U
Di-n-butyl phthalate	625	(ug/l)		<10U	---	<10U
Di-n-octyl phthalate	625	(ug/l)		<2.0U	---	<2.0U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS

Page 11 of 20

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-001 05/12/2006	MW-002 08/31/2005	MW-002 05/12/2006	MW-003 08/31/2005
Diphenylamine	625	(ug/l)		<1.0U	---	<1.0U	---	<1.0U
Fluoranthene	625	(ug/l)		>2.0U	---	>2.0U	---	>2.0U
Fluorene	625	(ug/l)		>2.0U	---	>2.0U	---	>2.0U
Hexachlorobenzene	625	(ug/l)		<1.0U	---	<1.0U	---	<1.0U
Hexachlorobutadiene	625	(ug/l)		<1.0U	---	<1.0U	---	<1.0U
Hexachlorocyclopentadiene	625	(ug/l)		>2.0U	---	>2.0U	---	>2.0U
Hexachloroethane	625	(ug/l)		<1.0U	---	<1.0U	---	<1.0U
Indeno(1,2,3-cd)pyrene	625	(ug/l)		<0.90U	---	<0.90U	---	<0.90U
Isophorone	625	(ug/l)		>2.0U	---	>2.0U	---	>2.0U
m-Dichlorobenzene	625	(ug/l)		43	---	>2.0U	---	>2.0U
m-Nitroaniline	625	(ug/l)		>2.5U	---	>2.5U	---	>2.5U
Naphthalene	625	(ug/l)		>2.0U	---	>2.0U	---	>2.0U
Nitrobenzene	625	(ug/l)		>2.0U	---	>2.0U	---	>2.0U
N-Nitrosodipropylamine	625	(ug/l)		<1.0U	---	<1.0U	---	<1.0U
o-Dichlorobenzene	625	(ug/l)		6.3	---	>2.0U	---	>2.0U
o-Nitroaniline	625	(ug/l)		>2.1U	---	>2.1U	---	>2.1U
p-Chloroaniline	625	(ug/l)		>2.0U	---	>2.0U	---	>2.0U
p-Dichlorobenzene	625	(ug/l)		20	---	>2.0U	---	>2.0U
Phenanthrene	625	(ug/l)		>2.0U	---	>2.0U	---	>2.0U
p-Nitroaniline	625	(ug/l)		>2.1U	---	>2.1U	---	>2.1U
Pyrene	625	(ug/l)		>2.0U	---	>2.0U	---	>2.0U
Total TICS - 625	625	(ug/l)		11.9U	---	U	---	U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS

Page 12 of 20

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-005 09/16/2005	MW-005 05/12/2006
1,2,4-Trichlorobenzene	625	(ug/l)		---	<2.0U	<2.0U	---	---
2,4-Dinitrotoluene	625	(ug/l)		---	<2.0U	<2.0U	---	---
2,6-Dinitrotoluene	625	(ug/l)		---	<2.0U	<2.0U	---	---
2-Chloronaphthalene	625	(ug/l)		---	<2.0U	<2.0U	---	---
2-Methylnaphthalene	625	(ug/l)		---	8.5	<2.0U	---	---
3,3-Dichlorobenzidine	625	(ug/l)		---	<2.0U	<2.0U	---	---
4-Bromophenyl phenyl ether	625	(ug/l)		---	<2.0U	<2.0U	---	---
4-Chlorophenyl phenyl ether	625	(ug/l)		---	<2.0U	<2.0U	---	---
Acenaphthene	625	(ug/l)		---	<2.0U	<2.0U	---	---
Acenaphthylene	625	(ug/l)		---	<2.0U	<2.0U	---	---
Aniline	625	(ug/l)		---	<2.0U	<2.0U	---	---
Anthracene	625	(ug/l)		---	<2.0U	<2.0U	---	---
Benzidine	625	(ug/l)		---	<10U	<10U	---	---
Benz(a)anthracene	625	(ug/l)		---	<0.20U	<0.20U	---	---
Benz(a)pyrene	625	(ug/l)		---	<0.20U	<0.20U	---	---
Benz(b)fluoranthene	625	(ug/l)		---	<0.90U	<0.90U	---	---
Benz(ghi)perylene	625	(ug/l)		---	<0.26U	<0.26U	---	---
Benz(k)fluoranthene	625	(ug/l)		---	<0.55U	<0.55U	---	---
Benzyl alcohol	625	(ug/l)		---	<2.0U	<2.0U	---	---
Bis(2-chloroethoxy)methane	625	(ug/l)		---	<2.0U	<2.0U	---	---
Bis(2-chloroethyl)ether	625	(ug/l)		---	<0.55U	<0.55U	---	---
Bis(2-chloroisopropyl)ether	625	(ug/l)		---	<2.0U	<2.0U	---	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 13 of 20

## EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-005 09/16/2005	MW-005 05/12/2006
Bis(2-ethylhexyl)phthalate(BEHP)	625	(ug/l)		---	<6.0U	<6.0U	---	---
Butylbenzylphthalate	625	(ug/l)		---	>2.0U	>2.0U	---	---
Chrysene	625	(ug/l)		---	<1.8U	<1.8U	---	---
Dibenz(a,h)anthracene	625	(ug/l)		---	<0.20U	<0.20U	---	---
Dibenzofuran	625	(ug/l)		---	>2.0U	>2.0U	---	---
Diethyl phthalate	625	(ug/l)		---	>2.0U	>2.0U	---	---
Dimethyl phthalate	625	(ug/l)		---	>2.0U	>2.0U	---	---
Di-n-butyl phthalate	625	(ug/l)		---	<10U	<10U	---	---
Di-n-octyl phthalate	625	(ug/l)		---	>2.0U	>2.0U	---	---
Diphenylamine	625	(ug/l)		---	<1.0U	<1.0U	---	---
Fluoranthene	625	(ug/l)		---	>2.0U	>2.0U	---	---
Fluorene	625	(ug/l)		---	>2.0U	>2.0U	---	---
Hexachlorobenzene	625	(ug/l)		---	<1.0U	<1.0U	---	---
Hexachlorobutadiene	625	(ug/l)		---	<1.0U	<1.0U	---	---
Hexachlorocyclopentadiene	625	(ug/l)		---	>2.0U	>2.0U	---	---
Hexachloroethane	625	(ug/l)		---	<1.0U	<1.0U	---	---
Indeno(1,2,3-cd)pyrene	625	(ug/l)		---	<0.90U	<0.90U	---	---
Isophorone	625	(ug/l)		---	>2.0U	>2.0U	---	---
m-Dichlorobenzene	625	(ug/l)		---	>2.0U	>2.0U	---	---
m-Nitroaniline	625	(ug/l)		---	>2.5U	>2.5U	---	---
Naphthalene	625	(ug/l)		36	>2.0U	>2.0U	---	---
Nitrobenzene	625	(ug/l)		---	>2.0U	>2.0U	---	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	MW-003	MW-004	MW-005	MW-005	MW-005
N-Nitrosodipropylamine	625	(ug/l)			- - -	<1.0U	<1.0U	- - -	- - -
o-Dichlorobenzene	625	(ug/l)			- - -	>2.0U	>2.0U	- - -	- - -
o-Nitroaniline	625	(ug/l)			- - -	<2.1U	<2.1U	- - -	- - -
o-Xylene	625	(ug/l)			- - -	154N	- - -	- - -	- - -
p-Chloroaniline	625	(ug/l)			- - -	>2.0U	>2.0U	- - -	- - -
p-Dichlorobenzene	625	(ug/l)			- - -	>2.0U	>2.0U	- - -	- - -
Phenanthrene	625	(ug/l)			- - -	>2.0U	>2.0U	- - -	- - -
p-Nitroaniline	625	(ug/l)			- - -	>2.1U	>2.1U	- - -	- - -
p-Xylene	625	(ug/l)			- - -	504N	- - -	- - -	- - -
Pyrene	625	(ug/l)			- - -	>2.0U	>2.0U	- - -	- - -
Total TICS - 625	625	(ug/l)			- - -	1644.6	U	- - -	- - -
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	MW-006	MW-006	MW-007	MW-007	MW-007
1,2,4-Trichlorobenzene	625	(ug/l)			>2.0U	- - -	- - -	- - -	- - -
2,4-Dinitrotoluene	625	(ug/l)			>2.0U	- - -	- - -	- - -	- - -
2,6-Dinitrotoluene	625	(ug/l)			>2.0U	- - -	- - -	- - -	- - -
2-Chloronaphthalene	625	(ug/l)			>2.0U	- - -	- - -	- - -	- - -
2-Methylnaphthalene	625	(ug/l)			>2.0U	- - -	- - -	- - -	- - -
3,3-Dichlorobenzidine	625	(ug/l)			>2.0U	- - -	- - -	- - -	- - -
4-Bromophenyl phenyl ether	625	(ug/l)			>2.0U	- - -	- - -	- - -	- - -

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-006 08/31/2005	MW-006 05/12/2006	MW-007 07/17/2007
4-Chlorophenyl phenyl ether	625	(ug/l)		<2.0U	---	---
Acenaphthene	625	(ug/l)		<2.0U	---	---
Acenaphthylene	625	(ug/l)		<2.0U	---	---
Aniline	625	(ug/l)		<2.0U	---	---
Anthracene	625	(ug/l)		<2.0U	---	---
Benzidine	625	(ug/l)		<10U	---	---
Benzo(a)anthracene	625	(ug/l)		<0.20U	---	---
Benzo(a)pyrene	625	(ug/l)		<0.20U	---	---
Benzo(b)fluoranthene	625	(ug/l)		<0.90U	---	---
Benzo(ghi)perylene	625	(ug/l)		<0.26U	---	---
Benzo(k)fluoranthene	625	(ug/l)		<0.55U	---	---
Benzyl alcohol	625	(ug/l)		<2.0U	---	---
Bis(2-chloroethoxy)methane	625	(ug/l)		<2.0U	---	---
Bis(2-chloroethyl)ether	625	(ug/l)		<0.55U	---	---
Bis(2-chloroisopropyl)ether	625	(ug/l)		<2.0U	---	---
Bis(2-ethylhexyl)phthalate(BEHP)	625	(ug/l)		<6.0U	---	---
Butylbenzylphthalate	625	(ug/l)		<2.0U	---	---
Chrysene	625	(ug/l)		<1.8U	---	---
Dibenz(a,h)anthracene	625	(ug/l)		<0.20U	---	---
Dibenzofuran	625	(ug/l)		<2.0U	---	---
Diethyl phthalate	625	(ug/l)		<2.0U	---	---
Dimethyl phthalate	625	(ug/l)		<2.0U	---	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-006 08/31/2005	MW-006 05/12/2006	MW-007 07/17/2007
Di-n-butyl phthalate	625	(ug/l)		<10U	---	---
Di-n-octyl phthalate	625	(ug/l)		<2.0U	---	---
Diphenylamine	625	(ug/l)		<1.0U	---	---
Fluoranthene	625	(ug/l)		<2.0U	---	---
Fluorene	625	(ug/l)		<2.0U	---	---
Hexachlorobenzene	625	(ug/l)		<1.0U	---	---
Hexachlorobutadiene	625	(ug/l)		<1.0U	---	---
Hexachlorocyclopentadiene	625	(ug/l)		<2.0U	---	---
Hexachloroethane	625	(ug/l)		<1.0U	---	---
Indeno(1,2,3-cd)pyrene	625	(ug/l)		<0.90U	---	---
Isophorone	625	(ug/l)		<2.0U	---	---
m-Dichlorobenzene	625	(ug/l)		<2.0U	---	---
m-Nitroaniline	625	(ug/l)		<2.5U	---	---
Naphthalene	625	(ug/l)		<2.0U	---	---
Nitrobenzene	625	(ug/l)		<2.0U	---	---
N-Nitrosodipropylamine	625	(ug/l)		<1.0U	---	---
o-Dichlorobenzene	625	(ug/l)		<2.0U	---	---
o-Nitroaniline	625	(ug/l)		<2.1U	---	---
p-Chloroaniline	625	(ug/l)		<2.0U	---	---
p-Dichlorobenzene	625	(ug/l)		<2.0U	---	---
Phenanthrene	625	(ug/l)		<2.0U	---	---
p-Nitroaniline	625	(ug/l)		<2.1U	---	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 17 of 20

**EPA Method 625 - Extraction Method for Semivolatile Organics (Base/Neutrals and Acids) Using GC/MS**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	MW-006	MW-006	MW-007
Pyrene		625	(ug/l)		>2.0U	---	---
Total TICS - 625		625	(ug/l)	U	---	---	---

**EPA Method 7196A - Chromium, Hexavalent: AA, Colorimetric**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	MW-001	MW-002	MW-002
Chromium (VI)		7196A	(mg/l)		<0.050U	---	---
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	MW-003	MW-004	MW-005
Chromium (VI)		7196A	(mg/l)		05/12/2006	08/31/2005	09/16/2005
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	MW-006	MW-006	MW-007
Chromium (VI)		7196A	(mg/l)		---	<0.050U	0.052
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	08/31/2005	05/12/2006	07/17/2007
Chromium (VI)		7196A	(mg/l)		<0.050U	---	---

**EPA Method 7470A - Mercury by Manual Cold-Vapor Technique**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	MW-001	MW-002	MW-002
					08/31/2005	05/12/2006	05/12/2006

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 18 of 20

**EPA Method 7470A - Mercury by Manual Cold-Vapor Technique**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-002 08/31/2005	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-006 09/16/2005	MW-007 05/12/2006
Mercury (Dissolved)	7470A	(mg/l)		<0.00100U	- - -		<0.00100U	- - -		<0.00100U
Mercury (Dissolved)	7470A	(mg/l)								

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-006 05/12/2006	MW-007 07/17/2007	MW-008 07/17/2007
Mercury (Dissolved)	7470A	(mg/l)		- - -	<0.00100U	<0.00100U	- - -	- - -	- - -
Mercury (Dissolved)	7470A	(mg/l)							

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-002 08/31/2005	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-006 09/16/2005	MW-007 05/12/2006
PCB (Aroclor 1016)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1221)	8082	(ug/l)		<0.50U						

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-002 08/31/2005	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-006 09/16/2005	MW-007 05/12/2006
PCB (Aroclor 1232)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1242)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1248)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1254)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1260)	8082	(ug/l)		<0.50U						

**EPA Method 8082 - Polychlorinated Biphenyls**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-002 08/31/2005	MW-003 05/12/2006	MW-004 08/31/2005	MW-005 08/31/2005	MW-006 09/16/2005	MW-007 05/12/2006
PCB (Aroclor 1016)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1221)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1232)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1242)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1248)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1254)	8082	(ug/l)		<0.50U						
PCB (Aroclor 1260)	8082	(ug/l)		<0.50U						

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental Professional Services Group, Inc.

ANALYTICAL CHEMISTRY REPORT

PA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	MW-001 08/31/2005	MW-002 08/31/2006	MW-003 08/31/2005
CB( Total Aroclors)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1016)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1221)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1232)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1242)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1248)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1254)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1260)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB( Total Aroclors)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1016)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1221)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1232)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1242)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1248)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1254)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1260)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB( Total Aroclors)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1016)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1221)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1232)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1242)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1248)	8082	(ug/l)		<0.50U	<0.50U	<0.50U
CB (Aroclor 1254)	8082	(ug/l)		<0.50U	<0.50U	<0.50U

**QUALIFIERS:** U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value,  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result over instrument calibration range. This result is an estimate; the true result may be higher.



REPSG  
React Environmental  
Professional Services Group, Inc.

ANALYTICAL CHEMISTRY REPORT

EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SAMPLE LOCATION: SAMPLE DATE:	SAMPLE LOCATION: SAMPLE DATE:
PCB (Aroclor 1260)	8082	(ug/l)	<0.50U	<0.50U	<0.50U
PCB( Total Aroclors)	8082	(ug/l)	-	<0.50U	-



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 6

## ANALYTICAL CHEMISTRY REPORT

### MATRIX: SOIL

#### METHODS:

- EPA Method 160.3 - Total Residue by Drying Oven
- EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry
- EPA Method 7060A - Arsenic by GFAA
- EPA Method 8082 - Polychlorinated Biphenyls (PCBs)
- EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SB-201 10/16/2007	SB-202 10/16/2007	SB-203 10/16/2007	SB-204 10/16/2007	SB-205 10/16/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (ft): 82	12.00	10.00	8.00	8.00	6.00
				82	94	89.1	96.5	89.2
Total Solids		160.3 (%)	SAMPLE LOCATION: SAMPLE DATE:	SB-206 10/16/2007	SB-207 10/16/2007	SB-208 10/16/2007	SB-209 10/16/2007	SB-210 10/16/2007
			SAMPLE DEPTH (ft): 89.6	4.00	6.00	3.00	6.00	3.00
Total Solids		160.3 (%)		89.6	87.6	90.5	89	90.4

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 2 of 6

**EPA Method 160.3 - Total Residue by Drying Oven**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	6.00	SB-212 10/16/2007
				89.4	3.00 91.8

**EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	
Copper	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	12.00	SB-202 10/16/2007
Lead	6010B	(mg/kg)		7.1B	SB-203 10/16/2007
				3.6J	SB-204 10/16/2007
Copper	6010B	(mg/kg)	SAMPLE LOCATION:	SB-206	SB-205 10/16/2007
Lead	6010B	(mg/kg)	SAMPLE DATE:	10/16/2007	SB-206 10/16/2007
				52	SB-207 10/16/2007
Copper	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	4.00	SB-208 10/16/2007
Lead	6010B	(mg/kg)		36B	SB-209 10/16/2007
				94	SB-210 10/16/2007
Copper	6010B	(mg/kg)	SAMPLE LOCATION:	SB-211	SB-212 10/16/2007
Lead	6010B	(mg/kg)	SAMPLE DATE:	10/16/2007	
					3.00 37B
Copper	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	6.00	3.00 36B
Lead	6010B	(mg/kg)		26B	160
				190	200
					190

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 7060A - Arsenic by GFAA

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-201	SB-202	SB-203	SB-204	SB-205
Arsenic	7060A	(mg/kg)	SAMPLE DEPTH (fbg):	10/16/2007	12.00	10.00	8.00	8.00	6.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-206	SB-207	SB-208	SB-209	SB-210
Arsenic	7060A	(mg/kg)	SAMPLE DEPTH (fbg):	10/16/2007	4.3D	2.4D	1.6D	<0.74UD	3.6D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-211	SB-212	SB-213	SB-214	SB-215
Arsenic	7060A	(mg/kg)	SAMPLE DEPTH (fbg):	10/16/2007	4.00	6.00	3.00	6.00	3.00
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-216	SB-217	SB-218	SB-219	SB-220
Arsenic	7060A	(mg/kg)	SAMPLE DEPTH (fbg):	10/16/2007	7.2D	4.8D	5.2D	5D	5D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-221	SB-222	SB-223	SB-224	SB-225
Arsenic	7060A	(mg/kg)	SAMPLE DEPTH (fbg):	10/16/2007	6.00	3.00	4.4D	4.4D	4.4D
EPA Method 8082 - Polychlorinated Biphenyls									
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-201	SB-202	SB-203	SB-204	SB-205
PCB (Aroclor 1016)	8082	(ug/kg)	SAMPLE DEPTH (fbg):	10/16/2007	<8.0U	<40UD	<16UD	<8.0U	<160UD
PCB (Aroclor 1221)	8082	(ug/kg)			<10U	<50UD	<20UD	<10U	>200UD
PCB (Aroclor 1232)	8082	(ug/kg)			<12U	<62UD	<25UD	<12U	>250UD
PCB (Aroclor 1242)	8082	(ug/kg)			<8.2U	<41UD	<16UD	<8.2U	<160UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 4 of 6

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-201	SB-202	SB-203	SB-204	SB-205
			SAMPLE DEPTH (ft/g)						
PCB (Aroclor 1248)	8082	(ug/kg)	<5.8U		<29UD	<12UD	<5.8U	<120UD	
PCB (Aroclor 1244)	8082	(ug/kg)	<5.9U		1100D	<12UD	<5.9U	<100UD	3400D
PCB (Aroclor 1260)	8082	(ug/kg)	<6.9U		690D	<14UD	<6.9U	<120UD	4600D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-206	SB-207	SB-208	SB-209	SB-210
			SAMPLE DEPTH (ft/g)						
PCB (Aroclor 1016)	8082	(ug/kg)	4.00		6.00	3.00	6.00	6.00	3.00
PCB (Aroclor 1221)	8082	(ug/kg)	<80UD		>80UD	<80UD	<200UD	<200UD	<40UD
PCB (Aroclor 1232)	8082	(ug/kg)	<100UD		<100UD	<100UD	<250UD	<250UD	<50UD
PCB (Aroclor 1242)	8082	(ug/kg)	<120UD		<120UD	<120UD	<310UD	<310UD	<62UD
PCB (Aroclor 1248)	8082	(ug/kg)	<82UD		<82UD	<82UD	<210UD	<210UD	<41UD
PCB (Aroclor 1254)	8082	(ug/kg)	<58UD		<58UD	<58UD	<150UD	<150UD	<29UD
PCB (Aroclor 1260)	8082	(ug/kg)	1900D		1600D	1500D	2800D	2800D	1300D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-211	SB-212	SB-213	SB-214	SB-215
			SAMPLE DEPTH (ft/g)						
PCB (Aroclor 1016)	8082	(ug/kg)	6.00		6.00	3.00	3.00	3.00	3.00
PCB (Aroclor 1221)	8082	(ug/kg)	<80UD		<80UD	<80UD	<80UD	<80UD	<80UD
PCB (Aroclor 1232)	8082	(ug/kg)	<100UD		<100UD	<100UD	<100UD	<100UD	<100UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

## CONSTITUENT

## METHOD

## UNITS

SAMPLE LOCATION: SB-211  
SAMPLE DATE: 10/16/2007SAMPLE LOCATION: SB-212  
SAMPLE DATE: 10/16/2007

PCB (Aroclor 1242)

(ug/kg)

SAMPLE DEPTH (ft:sg): 6.00

&lt;82UD

3.00

&lt;82UD

&lt;58UD

&lt;58UD

PCB (Aroclor 1248)

(ug/kg)

&lt;82UD

&lt;58UD

&lt;58UD

PCB (Aroclor 1254)

(ug/kg)

2700D

2400D

2400D

PCB (Aroclor 1260)

(ug/kg)

1300D

1400D

1400D

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

## CONSTITUENT

## METHOD

## UNITS

SAMPLE LOCATION: SB-201  
SAMPLE DATE: 10/16/2007SAMPLE LOCATION: SB-202  
SAMPLE DATE: 10/16/2007SAMPLE LOCATION: SB-203  
SAMPLE DATE: 10/16/2007SAMPLE LOCATION: SB-204  
SAMPLE DATE: 10/16/2007SAMPLE LOCATION: SB-205  
SAMPLE DATE: 10/16/2007

Benzo(a)anthracene

(ug/kg)

8270D

12.00

10.00

8.00

8.00

6.00

Benzo(a)pyrene

(ug/kg)

8270D

9.8J

9.8J

2900D

110JD

3.5J

Benzo(b)fluoranthene

(ug/kg)

8270D

10J

10J

3600D

130JD

&lt;10U

Dibenz(a,h)anthracene

(ug/kg)

8270D

12J

12J

4500D

150JD

&lt;3.0U

Naphthalene

(ug/kg)

8270D

96J

96J

1700D

160JD

6.1J

CONSTITUENT

## METHOD

## UNITS

SAMPLE LOCATION: SB-206  
SAMPLE DATE: 10/16/2007SAMPLE LOCATION: SB-207  
SAMPLE DATE: 10/16/2007SAMPLE LOCATION: SB-208  
SAMPLE DATE: 10/16/2007SAMPLE LOCATION: SB-209  
SAMPLE DATE: 10/16/2007SAMPLE LOCATION: SB-210  
SAMPLE DATE: 10/16/2007

Benzo(a)anthracene

(ug/kg)

8270D

4.00

6.00

3.00

6.00

3.00

Benzo(a)pyrene

(ug/kg)

8270D

8500D

7200D

10000D

9900D

13000D

3100D

3100D

7300D

9200D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. &lt; = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SB-206	SB-207	SB-208	SB-209	SB-210
			SAMPLE DEPTH (fb/g)						
Benzo(b)fluoranthene	8270D	(ug/kg)			4.00	6.00	3.00	6.00	3.00
Dibenz(a,h)anthracene	8270D	(ug/kg)			13000D	13000D	17000D	4000D	12000D
Naphthalene	8270D	(ug/kg)			1900D	1900D	2500D	540D	1500D
			SAMPLE LOCATION:	SAMPLE DATE:	SB-211	SB-212	SB-213	SB-214	SB-215
			SAMPLE DEPTH (fb/g)						
Benzo(a)anthracene	8270D	(ug/kg)			6.00	6.00	3.00	3.00	3.00
Benzo(a)pyrene	8270D	(ug/kg)			5700D	5700D	6600D	6600D	6600D
Benzo(b)fluoranthene	8270D	(ug/kg)			7500D	7500D	8600D	8600D	8600D
Dibenz(a,h)anthracene	8270D	(ug/kg)			9600D	9600D	11000D	11000D	11000D
Naphthalene	8270D	(ug/kg)			1500D	1500D	1400D	1400D	1400D
			SAMPLE LOCATION:	SAMPLE DATE:	SB-211	SB-212	SB-213	SB-214	SB-215
			SAMPLE DEPTH (fb/g)						
Benzo(a)anthracene	8270D	(ug/kg)			6.00	6.00	3.00	3.00	3.00
Benzo(a)pyrene	8270D	(ug/kg)			5700D	5700D	6600D	6600D	6600D
Benzo(b)fluoranthene	8270D	(ug/kg)			7500D	7500D	8600D	8600D	8600D
Dibenz(a,h)anthracene	8270D	(ug/kg)			9600D	9600D	11000D	11000D	11000D
Naphthalene	8270D	(ug/kg)			1500D	1500D	1400D	1400D	1400D
			SAMPLE LOCATION:	SAMPLE DATE:	SB-211	SB-212	SB-213	SB-214	SB-215
			SAMPLE DEPTH (fb/g)						
Benzo(a)anthracene	8270D	(ug/kg)			6.00	6.00	3.00	3.00	3.00
Benzo(a)pyrene	8270D	(ug/kg)			5700D	5700D	6600D	6600D	6600D
Benzo(b)fluoranthene	8270D	(ug/kg)			7500D	7500D	8600D	8600D	8600D
Dibenz(a,h)anthracene	8270D	(ug/kg)			9600D	9600D	11000D	11000D	11000D
Naphthalene	8270D	(ug/kg)			1500D	1500D	1400D	1400D	1400D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 2

## ANALYTICAL CHEMISTRY REPORT

**FORMER SCHMIDT'S BREWERY**  
**NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA**

### MATRIX: SOIL

#### METHODS:

EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SD-071 07/31/2002	SD-072 07/31/2002	SD-073 07/31/2002	SD-074 07/31/2002	SD-075 07/31/2002
		SAMPLE DEPTH (ft/g)						
PCB (Aroclor 1016)	8082	(mg/kg)	<0.1U	<0.00	<0.00	<0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1254)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1260)	8082	(mg/kg)	0.5	0.1	0.2	3.5	1.2	
PCB( Total Aroclors)	8082	(mg/kg)	0.5	0.1	0.2	3.5	1.2	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SD-076 07/31/2002	SD-077 07/31/2002	SD-078 07/31/2002	SD-079 07/31/2002	SD-080 07/31/2002
SAMPLE DEPTH (fbg)								
PCB (Aroclor 1016)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1221)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1254)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1260)	8082	(mg/kg)	0.5	<0.1U	<0.1U	<0.1U	<0.1U	0.6
PCB( Total Aroclors)	8082	(mg/kg)	0.5	<0.1U	<0.1U	<0.1U	<0.1U	0.6
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SD-081 07/31/2002	SD-082 07/31/2002	SD-083 07/31/2002	SD-084 07/31/2002	SD-085 07/31/2002
SAMPLE DEPTH (fbg)								
PCB (Aroclor 1016)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1221)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1254)	8082	(mg/kg)	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
PCB (Aroclor 1260)	8082	(mg/kg)	<0.1U	0.4	<0.1U	<0.1U	<0.1U	0.4
PCB( Total Aroclors)	8082	(mg/kg)	<0.1U	0.4	<0.1U	<0.1U	<0.1U	0.4

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 1

## ANALYTICAL CHEMISTRY REPORT

FORMER SCHMIDT'S BREWERY  
NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

### MATRIX: SOIL

EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

### ANALYTICAL CHEMISTRY REPORT

### EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-043 05/20/2002	SS-044 05/20/2002
			SAMPLE DEPTH (ft/ug)		
PCB (Aroclor 1016)	8082	(mg/kg)	<0.61U	<0.64U	
PCB (Aroclor 1221)	8082	(mg/kg)	<3.1U	<3.2U	
PCB (Aroclor 1232)	8082	(mg/kg)	<0.61U	<0.64U	
PCB (Aroclor 1242)	8082	(mg/kg)	<0.61U	<0.64U	
PCB (Aroclor 1248)	8082	(mg/kg)	<0.61U	<0.64U	
PCB (Aroclor 1254)	8082	(mg/kg)	<0.61U	<0.64U	
PCB (Aroclor 1260)	8082	(mg/kg)	180	1700	
PCB( Total Aroclors)	8082	(mg/kg)	180	1700	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental  
Professional Services Group, Inc.

Page 1 of 31

## ANALYTICAL CHEMISTRY REPORT

FORMER SCHMIDT'S BREWERY  
NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

### MATRIX: SOIL

#### METHODS:

EPA Method 160.3 - Total Residue by Drying Oven  
EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-002	SS-003	SS-004	SS-005
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
				89.2	89.5	91.5	90.3	91.3
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-006	SS-007	SS-008	SS-009
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
				90.5	90.8	89.6	89.5	90.4
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-011	SS-012	SS-015	SS-016
			SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
				11/27/2006	11/27/2006	11/27/2006	11/27/2006	11/27/2006
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-017	SS-017	SS-017	SS-017
			SAMPLE DEPTH (fbg):	0.00	0.00	0.00	0.00	0.00
				11/27/2006	11/27/2006	11/27/2006	11/27/2006	11/27/2006

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 2 of 31

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-011	SS-012	SS-015	SS-016	SS-017
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00	0.00
					88.8	91.1	90.1	90.4	91.4
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-018	SS-019	SS-020	SS-021	SS-022
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00	0.00
					89.1	89	88.8	90.5	88.6
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-023	SS-024	SS-025	SS-026	SS-027
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00	0.00
					89.3	89.1	88.1	88.6	--
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-045	SS-045	SS-046	SS-046	SS-047
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00	0.00
					--	92.4	--	94.9	--
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-047	SS-048	SS-048	SS-049	SS-049
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00	0.00
					91.1	--	91.9	--	94.3

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 3 of 31

**ANALYTICAL CHEMISTRY REPORT****EPA Method 160.3 - Total Residue by Drying Oven**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-050	SS-050	SS-051	SS-051
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00
				- - -	90.8	- - -	90.6	- - -
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-052	SS-053	SS-053	SS-054
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00
				- - -	90.2	- - -	89.2	- - -
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-055	SS-055	SS-056	SS-056
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00
				- - -	88	- - -	87.9	- - -
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-057	SS-058	SS-058	SS-059
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00
				- - -	88.6	- - -	87.2	- - -
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-060	SS-060	SS-061	SS-062
Total Solids		(%)	SAMPLE DEPTH (fbg):		0.00	0.00	0.00	0.00
				- - -	91.5	- - -	91.3	- - -

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT  
EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-062	SAMPLE DATE:	07/31/2002	SS-063	12/01/2006	SS-064	07/31/2002	SS-064	12/01/2006
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00	
				89.3		---	92.9		---		88.7	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-065	SAMPLE DATE:	07/31/2002	SS-065	12/01/2006	SS-066	07/31/2002	SS-066	07/31/2002
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00	
				---		88.4		---	92.5		---	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-067	SAMPLE DATE:	12/01/2006	SS-068	12/01/2006	SS-068	07/31/2002	SS-069	12/01/2006
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00	
				87		---	83.6		---		77.4	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-070	SAMPLE DATE:	07/31/2002	SS-070	12/01/2006	SS-071	12/01/2006	SS-072	12/01/2006
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00	
				---		85.5		79.6		88.4		81.3
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-074	SAMPLE DATE:	04/24/2007	SS-075	04/24/2007	SS-076	04/24/2007	SS-077	04/24/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00	
				93.2		94.5		94.1		94.3		94.1

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 5 of 31

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-079	SAMPLE DATE:	04/24/2007	SS-080	04/24/2007	SS-081	04/24/2007	SS-082	04/24/2007	SS-083	04/24/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00		0.00	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-084	SAMPLE DATE:	04/24/2007	SS-085	04/24/2007	SS-086	04/24/2007	SS-087	04/24/2007	SS-088	04/24/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00		0.00	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-089	SAMPLE DATE:	04/24/2007	SS-090	04/24/2007	SS-091	04/24/2007	SS-092	04/24/2007	SS-093	04/24/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00		0.00	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-094	SAMPLE DATE:	04/24/2007	SS-095	04/24/2007	SS-096	04/24/2007	SS-097	04/24/2007	SS-098	04/25/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00		0.00	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-099	SAMPLE DATE:	04/25/2007	SS-100	04/25/2007	SS-101	04/25/2007	SS-102	04/25/2007	SS-103	04/25/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00		0.00	0.00		0.00		0.00		0.00	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-104	SAMPLE DATE:	04/25/2007	SS-105	04/25/2007	SS-106	04/25/2007	SS-107	04/25/2007	SS-108	04/25/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				98.5			97.4		96.4		96.4		98.7	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-109	SAMPLE DATE:	04/25/2007	SS-110	04/25/2007	SS-111	04/25/2007	SS-112	04/25/2007	SS-113	04/25/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				96.7			93.2		97.7		95.7		94.5	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-114	SAMPLE DATE:	04/25/2007	SS-115	04/25/2007	SS-116	04/25/2007	SS-117	04/25/2007	SS-118	04/25/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				94.8			95.3		90		94.6		91.2	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-119	SAMPLE DATE:	04/25/2007	SS-120	04/25/2007	SS-121	04/25/2007	SS-122	04/25/2007	SS-123	04/25/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				90.8			91.6		93.4		88.8		86.9	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-124	SAMPLE DATE:	04/25/2007	SS-125	04/25/2007	SS-126	04/25/2007	SS-127	04/25/2007	SS-128	04/25/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				92			89.8		88.4		90.4		87	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-129	SAMPLE DATE:	04/25/2007	SS-130	04/25/2007	SS-131	04/25/2007	SS-132	04/25/2007	SS-133	04/25/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				89.6			87.6		85.3		95		95.6	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-134	SAMPLE DATE:	04/25/2007	SS-135	04/25/2007	SS-136	04/25/2007	SS-137	04/25/2007	SS-138	04/25/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				90.3			89.8		87.1		86.4		89	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-139	SAMPLE DATE:	04/25/2007	SS-140	04/26/2007	SS-141	04/26/2007	SS-142	04/26/2007	SS-143	04/27/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				86.2			93.2		90.6		88.2		84.1	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-144	SAMPLE DATE:	04/27/2007	SS-145	04/27/2007	SS-146	04/27/2007	SS-147	04/27/2007	SS-148	04/27/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				83.2			83.1		85.8		84.1		88.5	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-149	SAMPLE DATE:	04/27/2007	SS-150	04/27/2007	SS-151	04/27/2007	SS-152	04/27/2007	SS-153	04/27/2007
Total Solids		(%)	SAMPLE DEPTH (fbg):	0.00			0.00		0.00		0.00		0.00	
				91.1			88.4		94.6		83.3		82.1	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 8 of 31

**ANALYTICAL CHEMISTRY REPORT****EPA Method 160.3 - Total Residue by Drying Oven**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-154	SAMPLE DATE:	04/27/2007	SAMPLE LOCATION:	SS-155	SAMPLE DATE:	04/27/2007	SAMPLE LOCATION:	SS-156	SAMPLE DATE:	04/27/2007	SAMPLE LOCATION:	SS-157	SAMPLE DATE:	04/27/2007	SAMPLE LOCATION:	SS-158	SAMPLE DATE:	04/27/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00																		
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-159	SAMPLE DATE:	04/27/2007	SAMPLE LOCATION:	SS-160	SAMPLE DATE:	04/27/2007	SAMPLE LOCATION:	SS-161	SAMPLE DATE:	04/27/2007	SAMPLE LOCATION:	SS-162	SAMPLE DATE:	04/27/2007	SAMPLE LOCATION:	SS-163	SAMPLE DATE:	05/07/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00																		
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-164	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-165	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-166	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-167	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-168	SAMPLE DATE:	05/07/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00																		
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-169	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-170	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-171	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-172	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-173	SAMPLE DATE:	05/07/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00																		
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-174	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-175	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-176	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-177	SAMPLE DATE:	05/07/2007	SAMPLE LOCATION:	SS-178	SAMPLE DATE:	05/07/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	0.00																		

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 9 of 31

**EPA Method 160.3 - Total Residue by Drying Oven**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-179	SS-180	SS-181	SS-182	SS-183
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	05/07/2007	05/07/2007	05/07/2007	05/07/2007	05/07/2007
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg)	0.00	0.00	0.00	0.00	0.00
Total Solids		160.3 (%)	SAMPLE LOCATION:	SS-184	SS-185	SS-185	SS-185	SS-185
Total Solids		160.3 (%)	SAMPLE DATE:	05/07/2007	05/07/2007	05/07/2007	05/07/2007	05/07/2007

**EPA Method 8082 - Polychlorinated Biphenyls**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-001	SS-002	SS-003	SS-004	SS-005
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	11/27/2006	11/27/2006	11/27/2006	11/27/2006	11/27/2006
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (fbg)	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<10UD	<10UD	<10UD	<10UD	<20UD
PCB (Aroclor 1222)	8082	(mg/kg)		<10UD	<10UD	<10UD	<10UD	<20UD
PCB (Aroclor 1242)	8082	(mg/kg)		<10UD	<10UD	<10UD	<10UD	<20UD
PCB (Aroclor 1248)	8082	(mg/kg)		<10UD	<10UD	<10UD	<10UD	<20UD
PCB (Aroclor 1254)	8082	(mg/kg)		<10UD	<10UD	<10UD	<10UD	<20UD
PCB (Aroclor 1260)	8082	(mg/kg)		41D	53DE	50DE	44D	71D
PCBs Total Aroclors	8082	(mg/kg)		41D	53E	50E	44D	71D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 10 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-006 11/27/2006	SS-007 11/27/2006	SS-008 11/27/2006	SS-009 11/27/2006	SS-010 11/27/2006
SAMPLE DEPTH (fbg)								
PCB (Aroclor 1016)	8082	(mg/kg)	<20UD	<20UD	<10UD	<10UD	<10UD	<10UD
PCB (Aroclor 1221)	8082	(mg/kg)	<20UD	<20UD	<10UD	<10UD	<10UD	<10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<20UD	<20UD	<10UD	<10UD	<10UD	<10UD
PCB (Aroclor 1242)	8082	(mg/kg)	<20UD	<20UD	<10UD	<10UD	<10UD	<10UD
PCB (Aroclor 1248)	8082	(mg/kg)	<20UD	<20UD	<10UD	<10UD	<10UD	<10UD
PCB (Aroclor 1244)	8082	(mg/kg)	<20UD	<20UD	<10UD	<10UD	<10UD	<10UD
PCB (Aroclor 1260)	8082	(mg/kg)	82D	57D	54DE	51DE	53DE	53E
PCB( Total Aroclors)	8082	(mg/kg)	82D	57D	54E	51E	53E	53E
SAMPLE DEPTH (fbg)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-011 11/27/2006	SS-012 11/27/2006	SS-015 11/27/2006	SS-016 11/27/2006	SS-017 11/27/2006
SAMPLE DEPTH (fbg)								
PCB (Aroclor 1016)	8082	(mg/kg)	<10UD	<10UD	<10UD	<20UD	<20UD	<33UD
PCB (Aroclor 1221)	8082	(mg/kg)	<10UD	<10UD	<10UD	<20UD	<20UD	<33UD
PCB (Aroclor 1232)	8082	(mg/kg)	<10UD	<10UD	<10UD	<20UD	<20UD	<33UD
PCB (Aroclor 1242)	8082	(mg/kg)	<10UD	<10UD	<10UD	<20UD	<20UD	<33UD
PCB (Aroclor 1248)	8082	(mg/kg)	<10UD	<10UD	<10UD	<20UD	<20UD	<33UD
PCB (Aroclor 1244)	8082	(mg/kg)	<10UD	<10UD	<10UD	<20UD	<20UD	<33UD
PCB (Aroclor 1260)	8082	(mg/kg)	47D	45D	40D	52D	110D	110D
PCB( Total Aroclors)	8082	(mg/kg)	47D	45D	40D	52D	110D	110D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 11 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-018	SS-019	SS-020	SS-021	SS-022
			SAMPLE DATE:	11/27/2006	11/27/2006	11/27/2006	11/27/2006	11/27/2006
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<17UD	<71UD	<71UD	<16UD	<16UD	<16UD
PCB (Aroclor 1221)	8082	(mg/kg)	<17UD	<71UD	<16UD	<16UD	<16UD	<16UD
PCB (Aroclor 1232)	8082	(mg/kg)	<17UD	<71UD	<16UD	<16UD	<16UD	<16UD
PCB (Aroclor 1242)	8082	(mg/kg)	<17UD	<71UD	<16UD	<16UD	<16UD	<16UD
PCB (Aroclor 1248)	8082	(mg/kg)	<17UD	<71UD	<16UD	<16UD	<16UD	<16UD
PCB (Aroclor 1244)	8082	(mg/kg)	<17UD	<71UD	<16UD	<16UD	<16UD	<16UD
PCB (Aroclor 1260)	8082	(mg/kg)	76D	120D	65D	80D	80D	53D
PCB( Total Aroclors)	8082	(mg/kg)	76D	120D	65D	80D	80D	53D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-023	SS-024	SS-025	SS-026	SS-027
			SAMPLE DATE:	11/27/2006	11/27/2006	11/27/2006	11/27/2006	11/28/2006
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<16UD	<16UD	<17UD	<68UD	<68UD	<5.35UD
PCB (Aroclor 1221)	8082	(mg/kg)	<16UD	<16UD	<17UD	<68UD	<68UD	<5.35UD
PCB (Aroclor 1232)	8082	(mg/kg)	<16UD	<16UD	<17UD	<68UD	<68UD	<5.35UD
PCB (Aroclor 1242)	8082	(mg/kg)	<16UD	<16UD	<17UD	<68UD	<68UD	<5.35UD
PCB (Aroclor 1248)	8082	(mg/kg)	<16UD	<16UD	<17UD	<68UD	<68UD	<5.35UD
PCB (Aroclor 1244)	8082	(mg/kg)	<16UD	<16UD	<17UD	<68UD	<68UD	<5.35UD
PCB (Aroclor 1260)	8082	(mg/kg)	59D	56D	50D	120D	120D	45.5D
PCB( Total Aroclors)	8082	(mg/kg)	59D	56D	50D	120D	120D	45.5D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-028	SS-029	SS-030	SS-031	SS-032
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	11/28/2006	11/28/2006	11/28/2006	11/28/2006	11/28/2006
			SAMPLE DEPTH (ft/g)					
PCB (Aroclor 1016)	8082	(mg/kg)	<5.38UD	<5.34UD	<2.14UD	<11.2UD	<5.47UD	
PCB (Aroclor 1221)	8082	(mg/kg)	<5.38UD	<5.34UD	<2.14UD	<11.2UD	<5.47UD	
PCB (Aroclor 1232)	8082	(mg/kg)	<5.38UD	<5.34UD	<2.14UD	<11.2UD	<5.47UD	
PCB (Aroclor 1242)	8082	(mg/kg)	<5.38UD	<5.34UD	<2.14UD	<11.2UD	<5.47UD	
PCB (Aroclor 1248)	8082	(mg/kg)	<5.38UD	<5.34UD	<2.14UD	<11.2UD	<5.47UD	
PCB (Aroclor 1244)	8082	(mg/kg)	<5.38UD	<5.34UD	<2.14UD	<11.2UD	<5.47UD	
PCB (Aroclor 1260)	8082	(mg/kg)	44D	41.2D	15.8D	69.5D	31.7D	
PCB( Total Aroclors)	8082	(mg/kg)	44D	41.2D	15.8D	69.5D	31.7D	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-033	SS-034	SS-035	SS-036	SS-037
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	11/28/2006	11/28/2006	11/28/2006	11/28/2006	11/28/2006
			SAMPLE DEPTH (ft/g)					
PCB (Aroclor 1016)	8082	(mg/kg)	<5.33UD	<5.55UD	<5.35UD	<2.15UD	<2.18UD	
PCB (Aroclor 1221)	8082	(mg/kg)	<5.33UD	<5.55UD	<5.35UD	<2.15UD	<2.18UD	
PCB (Aroclor 1232)	8082	(mg/kg)	<5.33UD	<5.55UD	<5.35UD	<2.15UD	<2.18UD	
PCB (Aroclor 1242)	8082	(mg/kg)	<5.33UD	<5.55UD	<5.35UD	<2.15UD	<2.18UD	
PCB (Aroclor 1248)	8082	(mg/kg)	<5.33UD	<5.55UD	<5.35UD	<2.15UD	<2.18UD	
PCB (Aroclor 1244)	8082	(mg/kg)	<5.33UD	<5.55UD	<5.35UD	<2.15UD	<2.18UD	
PCB (Aroclor 1260)	8082	(mg/kg)	27.1D	55.1D	47.6D	9.02D	19.3D	
PCB( Total Aroclors)	8082	(mg/kg)	27.1D	55.1D	47.6D	9.02D	19.3D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

Page 13 of 31

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-038	SS-039	SS-040	SS-041	SS-042
SAMPLE DEPTH (ft@g):									
PCB (Aroclor 1016)	8082	(mg/kg)	<5.54UD	11/28/2006	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)	<5.54UD	11/28/2006	<5.25UD	<2.18UD	<2.12UD	<2.12UD	<2.06UD
PCB (Aroclor 1232)	8082	(mg/kg)	<5.54UD	11/28/2006	<5.25UD	<2.18UD	<2.12UD	<2.12UD	<2.06UD
PCB (Aroclor 1242)	8082	(mg/kg)	<5.54UD	11/28/2006	<5.25UD	<2.18UD	<2.12UD	<2.12UD	<2.06UD
PCB (Aroclor 1248)	8082	(mg/kg)	<5.54UD	11/28/2006	<5.25UD	<2.18UD	<2.12UD	<2.12UD	<2.06UD
PCB (Aroclor 1244)	8082	(mg/kg)	<5.54UD	11/28/2006	<5.25UD	<2.18UD	<2.12UD	<2.12UD	<2.06UD
PCB (Aroclor 1260)	8082	(mg/kg)	28.3D	11/28/2006	21D	17.1D	6.6D	17.6D	
PCB( Total Aroclors)	8082	(mg/kg)	28.3D	11/28/2006	21D	17.1D	6.6D	17.6D	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-045	SS-046	SS-046	SS-047	SS-047
SAMPLE DEPTH (ft@g):									
PCB (Aroclor 1016)	8082	(mg/kg)	U	05/20/2002	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)	U	05/20/2002	<5.0UD	U	<5.0UD	U	<5.0UD
PCB (Aroclor 1232)	8082	(mg/kg)	U	05/20/2002	<5.0UD	U	<5.0UD	U	<5.0UD
PCB (Aroclor 1242)	8082	(mg/kg)	U	05/20/2002	<5.0UD	U	<5.0UD	U	<5.0UD
PCB (Aroclor 1248)	8082	(mg/kg)	U	05/20/2002	<5.0UD	U	<5.0UD	U	<5.0UD
PCB (Aroclor 1244)	8082	(mg/kg)	U	05/20/2002	8.9D	U	8.9D	U	5.9D
PCB (Aroclor 1260)	8082	(mg/kg)	U	05/20/2002	12D	U	12D	U	8.8D
PCB( Total Aroclors)	8082	(mg/kg)	U	05/20/2002	21D	U	21D	U	15D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-047	SS-048	SS-048	SS-049	SS-049
SAMPLE DEPTH (ft@g)									
PCB (Aroclor 1016)	8082	(mg/kg)			<5.0UD	2.059	<5.0UD	U	<5.0UD
PCB (Aroclor 1221)	8082	(mg/kg)			<5.0UD	U	<5.0UD	U	<5.0UD
PCB (Aroclor 1232)	8082	(mg/kg)			<5.0UD	U	<5.0UD	U	<5.0UD
PCB (Aroclor 1242)	8082	(mg/kg)			<5.0UD	U	<5.0UD	U	<5.0UD
PCB (Aroclor 1248)	8082	(mg/kg)			<5.0UD	U	<5.0UD	U	<5.0UD
PCB (Aroclor 1244)	8082	(mg/kg)			15D	U	13D	U	7.3D
PCB (Aroclor 1260)	8082	(mg/kg)			20D	1.718	15D	126.35	9.5D
PCB( Total Aroclors)	8082	(mg/kg)			35D	3.777	28D	126.35	17D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-050	SS-050	SS-051	SS-051	SS-052
SAMPLE DEPTH (ft@g)									
PCB (Aroclor 1016)	8082	(mg/kg)			U	<120UD	U	<40UD	U
PCB (Aroclor 1221)	8082	(mg/kg)			U	<120UD	U	<40UD	U
PCB (Aroclor 1232)	8082	(mg/kg)			U	<120UD	U	<40UD	U
PCB (Aroclor 1242)	8082	(mg/kg)			U	<120UD	U	<40UD	U
PCB (Aroclor 1248)	8082	(mg/kg)			U	<120UD	U	<40UD	U
PCB (Aroclor 1244)	8082	(mg/kg)			U	240D	U	110D	U
PCB (Aroclor 1260)	8082	(mg/kg)			4.15	290D	34.16	140D	1181
PCB( Total Aroclors)	8082	(mg/kg)			4.15	530D	34.16	250D	1181

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 15 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-052	SS-053	SS-053	SS-054	SS-054
SAMPLE DEPTH (ft/eg):									
PCB (Aroclor 1016)	8082	(mg/kg)	<50UD	11/29/2006	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)	<50UD	1938	<25UD	<25UD	1821	<10UD	<10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<50UD	U	<25UD	U	U	<10UD	<10UD
PCB (Aroclor 1242)	8082	(mg/kg)	<50UD	U	<25UD	U	U	<10UD	<10UD
PCB (Aroclor 1248)	8082	(mg/kg)	<50UD	U	<25UD	U	U	<10UD	<10UD
PCB (Aroclor 124)	8082	(mg/kg)	89D	U	42D	U	U	<10UD	<10UD
PCB (Aroclor 1260)	8082	(mg/kg)	110D	4441	53D	2902	2902	43D	43D
PCB( Total Aroclors)	8082	(mg/kg)	200D	6379	95D	4723	4723	43D	43D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-055	SS-055	SS-056	SS-056	SS-057
SAMPLE DEPTH (ft/eg):									
PCB (Aroclor 1016)	8082	(mg/kg)	2372	<5.0UD	2680	<25UD	<25UD	1639	1639
PCB (Aroclor 1221)	8082	(mg/kg)	U	<5.0UD	U	<25UD	U	U	U
PCB (Aroclor 1232)	8082	(mg/kg)	U	<5.0UD	U	<25UD	U	U	U
PCB (Aroclor 1242)	8082	(mg/kg)	U	<5.0UD	U	<25UD	U	U	U
PCB (Aroclor 1248)	8082	(mg/kg)	U	<5.0UD	U	<25UD	U	U	U
PCB (Aroclor 124)	8082	(mg/kg)	U	16D	U	35D	35D	U	U
PCB (Aroclor 1260)	8082	(mg/kg)	U	23D	4148	49D	49D	4284	4284
PCB( Total Aroclors)	8082	(mg/kg)	2372	39D	6828	84D	84D	5923	5923

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 16 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-057	SS-058	SS-058	SS-059	SS-059
SAMPLE DEPTH (ft/sg):									
PCB (Aroclor 1016)	8082	(mg/kg)			<5.0UD	1341	<25UD	<10U	<5.0UD
PCB (Aroclor 1221)	8082	(mg/kg)			<5.0UD	U	<25UD	<10U	<5.0UD
PCB (Aroclor 1232)	8082	(mg/kg)			<5.0UD	U	<25UD	<10U	<5.0UD
PCB (Aroclor 1242)	8082	(mg/kg)			<5.0UD	U	<25UD	<10U	<5.0UD
PCB (Aroclor 1248)	8082	(mg/kg)			<5.0UD	U	<25UD	<10U	<5.0UD
PCB (Aroclor 1244)	8082	(mg/kg)			14D	U	48D	<10U	17D
PCB (Aroclor 1260)	8082	(mg/kg)			20D	3950	66D	560	23D
PCB( Total Aroclors)	8082	(mg/kg)			34D	5291	110D	560	40D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-060	SS-060	SS-061	SS-061	SS-062
SAMPLE DEPTH (ft/sg):									
PCB (Aroclor 1016)	8082	(mg/kg)			<10U	<25UD	<10U	<25UD	<10U
PCB (Aroclor 1221)	8082	(mg/kg)			<10U	<25UD	<10U	<25UD	<10U
PCB (Aroclor 1232)	8082	(mg/kg)			<10U	<25UD	<10U	<25UD	<10U
PCB (Aroclor 1242)	8082	(mg/kg)			<10U	<25UD	<10U	<25UD	<10U
PCB (Aroclor 1248)	8082	(mg/kg)			<10U	<25UD	<10U	<25UD	<10U
PCB (Aroclor 1244)	8082	(mg/kg)			<10U	41D	<10U	49D	<10U
PCB (Aroclor 1260)	8082	(mg/kg)			500	56D	400	68D	300
PCB( Total Aroclors)	8082	(mg/kg)			500	97D	400	120D	300

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 17 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-062	SS-063	SS-063	SS-064	SS-064
SAMPLE DEPTH (ft@g)									
PCB (Aroclor 1016)	8082	(mg/kg)	<25UD	<10U	<25UD	<10U	<25UD	<10U	<25UD
PCB (Aroclor 1221)	8082	(mg/kg)	<25UD	<10U	<25UD	<10U	<25UD	<10U	<25UD
PCB (Aroclor 1232)	8082	(mg/kg)	<25UD	<10U	<25UD	<10U	<25UD	<10U	<25UD
PCB (Aroclor 1242)	8082	(mg/kg)	<25UD	<10U	<25UD	<10U	<25UD	<10U	<25UD
PCB (Aroclor 1248)	8082	(mg/kg)	<25UD	<10U	<25UD	<10U	<25UD	<10U	<25UD
PCB (Aroclor 1244)	8082	(mg/kg)	66D	<10U	40D	<10U	40D	<10U	73D
PCB (Aroclor 1260)	8082	(mg/kg)	84D	600	52D	600	52D	460	100D
PCB( Total Aroclors)	8082	(mg/kg)	150D	600	92D	600	92D	460	170D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-065	SS-065	SS-066	SS-066	SS-067
SAMPLE DEPTH (ft@g)									
PCB (Aroclor 1016)	8082	(mg/kg)	<10U	<25UD	<10U	<25UD	<10U	<10UD	<10U
PCB (Aroclor 1221)	8082	(mg/kg)	<10U	<25UD	<10U	<25UD	<10U	<10UD	<10U
PCB (Aroclor 1232)	8082	(mg/kg)	<10U	<25UD	<10U	<25UD	<10U	<10UD	<10U
PCB (Aroclor 1242)	8082	(mg/kg)	<10U	<25UD	<10U	<25UD	<10U	<10UD	<10U
PCB (Aroclor 1248)	8082	(mg/kg)	<10U	<25UD	<10U	<25UD	<10U	<10UD	<10U
PCB (Aroclor 1244)	8082	(mg/kg)	<10U	56D	<10U	56D	<10U	21D	<10U
PCB (Aroclor 1260)	8082	(mg/kg)	150	76D	80	76D	80	27D	120
PCB( Total Aroclors)	8082	(mg/kg)	150	130D	80	130D	80	48D	120

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 18 of 31

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-067	SS-068	SS-068	SS-069	SS-069
SAMPLE DEPTH (ft@g):									
PCB (Aroclor 1016)	8082	(mg/kg)			<5.0UD	<10U	<25UD	<10U	<32UD
PCB (Aroclor 1221)	8082	(mg/kg)			<5.0UD	<10U	<25UD	<10U	<32UD
PCB (Aroclor 1232)	8082	(mg/kg)			<5.0UD	<10U	<25UD	<10U	<32UD
PCB (Aroclor 1242)	8082	(mg/kg)			<5.0UD	<10U	<25UD	<10U	<32UD
PCB (Aroclor 1248)	8082	(mg/kg)			<5.0UD	<10U	<25UD	<10U	<32UD
PCB (Aroclor 1244)	8082	(mg/kg)			14D	<10U	40D	<10U	39D
PCB (Aroclor 1260)	8082	(mg/kg)			20D	180	56D	260	51D
PCB( Total Aroclors)	8082	(mg/kg)			34D	180	96D	260	90D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-070	SS-070	SS-071	SS-072	SS-073
SAMPLE DEPTH (ft@g):									
PCB (Aroclor 1016)	8082	(mg/kg)			0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)			<10U	<10UD	<6.3UD	<5.0UD	<5.0UD
PCB (Aroclor 1232)	8082	(mg/kg)			<10U	<10UD	<6.3UD	<5.0UD	<5.0UD
PCB (Aroclor 1242)	8082	(mg/kg)			<10U	<10UD	<6.3UD	<5.0UD	<5.0UD
PCB (Aroclor 1248)	8082	(mg/kg)			<10U	<10UD	<6.3UD	<5.0UD	<5.0UD
PCB (Aroclor 1244)	8082	(mg/kg)			<10U	<10UD	31D	18D	13D
PCB (Aroclor 1260)	8082	(mg/kg)			640	36D	23D	18D	7.1D
PCB( Total Aroclors)	8082	(mg/kg)			640	67D	41D	31D	14D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

Page 19 of 31

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-074 04/24/2007	SS-075 04/24/2007	SS-076 04/24/2007	SS-077 04/24/2007	SS-078 04/24/2007
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)		<0.48UD	<1.1UD	<2.3UD	<2.4UD	<2.7UD
PCB (Aroclor 1221)	8082	(mg/kg)		<0.59UD	<1.4UD	<2.8UD	<3.0UD	<3.3UD
PCB (Aroclor 1232)	8082	(mg/kg)		<0.73UD	<1.7UD	<3.5UD	<3.8UD	<4.1UD
PCB (Aroclor 1242)	8082	(mg/kg)		<0.49UD	<1.1UD	<2.3UD	<2.5UD	<2.7UD
PCB (Aroclor 1248)	8082	(mg/kg)		<0.34UD	<0.81UD	<1.6UD	<1.8UD	<1.9UD
PCB (Aroclor 1244)	8082	(mg/kg)		5.3D	<0.81UD	<1.7UD	<1.8UD	<2.0UD
PCB (Aroclor 1260)	8082	(mg/kg)		8.7D	11D	41D	49D	67D
PCB( Total Aroclors)	8082	(mg/kg)		14D	11D	41D	49D	67D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-079 04/24/2007	SS-080 04/24/2007	SS-081 04/24/2007	SS-082 04/24/2007	SS-083 04/24/2007
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)		<2.4UD	<2.2UD	<2.4UD	<2.3UD	<2.2UD
PCB (Aroclor 1221)	8082	(mg/kg)		<3.0UD	<2.7UD	<3.0UD	<2.8UD	<2.8UD
PCB (Aroclor 1232)	8082	(mg/kg)		<3.7UD	<3.3UD	<3.7UD	<3.5UD	<3.4UD
PCB (Aroclor 1242)	8082	(mg/kg)		<2.4UD	<2.2UD	<2.4UD	<2.3UD	<2.3UD
PCB (Aroclor 1248)	8082	(mg/kg)		<1.7UD	<1.6UD	<1.7UD	<1.6UD	<1.6UD
PCB (Aroclor 1244)	8082	(mg/kg)		<1.7UD	<1.6UD	<1.7UD	<1.7UD	<1.6UD
PCB (Aroclor 1260)	8082	(mg/kg)		51D	64DE	54D	53D	38D
PCB( Total Aroclors)	8082	(mg/kg)		51D	64E	54D	53D	38D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 20 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-084 04/24/2007	SS-085 04/24/2007	SS-086 04/24/2007	SS-087 04/24/2007	SS-088 04/24/2007
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<1.2UD	<9.5UD	<10UD	<2.4UD	<1.2UD	
PCB (Aroclor 1221)	8082	(mg/kg)	<1.5UD	<12UD	<13UD	<3.0UD	<1.5UD	
PCB (Aroclor 1232)	8082	(mg/kg)	<1.8UD	<15UD	<16UD	<3.7UD	<1.9UD	
PCB (Aroclor 1242)	8082	(mg/kg)	<1.2UD	<9.7UD	<11UD	<2.4UD	<1.3UD	
PCB (Aroclor 1248)	8082	(mg/kg)	<0.85UD	<6.8UD	<7.4UD	<1.7UD	<0.89UD	
PCB (Aroclor 1244)	8082	(mg/kg)	<0.86UD	<6.9UD	<7.5UD	<1.7UD	<0.89UD	
PCB (Aroclor 1260)	8082	(mg/kg)	16D	180D	230D	35D	25D	
PCB( Total Aroclors)	8082	(mg/kg)	16D	180D	230D	35D	25D	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-089 04/24/2007	SS-090 04/24/2007	SS-091 04/24/2007	SS-092 04/24/2007	SS-093 04/24/2007
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<5.0UD	<2.1UD	<2.6UD	<0.24UD	<2.5UD	
PCB (Aroclor 1221)	8082	(mg/kg)	<6.3UD	<2.7UD	<3.3UD	<0.30UD	<3.1UD	
PCB (Aroclor 1232)	8082	(mg/kg)	<7.8UD	<3.3UD	<4.0UD	<0.38UD	<3.8UD	
PCB (Aroclor 1242)	8082	(mg/kg)	<5.2UD	<2.2UD	<2.7UD	<0.25UD	<2.5UD	
PCB (Aroclor 1248)	8082	(mg/kg)	<3.6UD	<1.5UD	<1.9UD	2.6D	<1.8UD	
PCB (Aroclor 1244)	8082	(mg/kg)	<3.7UD	<1.5UD	<1.9UD	5.2D	<1.8UD	
PCB (Aroclor 1260)	8082	(mg/kg)	130D	33D	58D	6.8D	64D	
PCB( Total Aroclors)	8082	(mg/kg)	130D	33D	58D	15D	64D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 21 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-094	SAMPLE DATE:	04/24/2007	SS-095	SAMPLE DATE:	04/24/2007	SS-096	SAMPLE DATE:	04/24/2007	SS-097	SAMPLE DATE:	04/24/2007	SS-098	SAMPLE DATE:	04/25/2007			
			SAMPLE DEPTH (ft@g)																		
PCB (Aroclor 1016)	8082	(mg/kg)		<0.41UD		<0.46UD		<1.1UD		<0.48UD		<0.48UD		<2.5UD		<2.5UD		<2.5UD			
PCB (Aroclor 1221)	8082	(mg/kg)		<0.52UD		<0.58UD		<1.3UD		<0.60UD		<0.60UD		<2.5UD		<2.5UD		<2.5UD			
PCB (Aroclor 1232)	8082	(mg/kg)		<0.64UD		<0.72UD		<1.6UD		<0.74UD		<0.74UD		<2.5UD		<2.5UD		<2.5UD			
PCB (Aroclor 1242)	8082	(mg/kg)		<0.42UD		<0.48UD		<1.1UD		<0.49UD		<0.49UD		<2.5UD		<2.5UD		<2.5UD			
PCB (Aroclor 1248)	8082	(mg/kg)		<0.30UD		<0.34UD		<0.77UD		<0.35UD		<0.35UD		<2.5UD		<2.5UD		<2.5UD			
PCB (Aroclor 1244)	8082	(mg/kg)		6.2D		4.5D		8.7D		5.6D		5.6D		6.4D		6.4D		6.4D			
PCB (Aroclor 1260)	8082	(mg/kg)		7.5D		9.6D		21D		11D		11D		10D		10D		10D			
PCB( Total Aroclors)	8082	(mg/kg)		14D		14D		30D		30D		30D		17D		17D		16D			
			SAMPLE DEPTH (ft@g)																		
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-099	SAMPLE DATE:	04/25/2007	SS-100	SAMPLE DATE:	04/25/2007	SS-101	SAMPLE DATE:	04/25/2007	SS-102	SAMPLE DATE:	04/25/2007	SS-103	SAMPLE DATE:	04/25/2007	SS-104	SAMPLE DATE:	04/25/2007
			SAMPLE DEPTH (ft@g)																		
PCB (Aroclor 1016)	8082	(mg/kg)		<7.2UD		<2.8UD		<7.4UD		<6.8UD		<6.8UD		<1.3UD		<1.3UD		<1.3UD		<1.3UD	
PCB (Aroclor 1221)	8082	(mg/kg)		<7.2UD		<2.8UD		<7.4UD		<6.8UD		<6.8UD		<1.3UD		<1.3UD		<1.3UD		<1.3UD	
PCB (Aroclor 1232)	8082	(mg/kg)		<7.2UD		<2.8UD		<7.4UD		<6.8UD		<6.8UD		<1.3UD		<1.3UD		<1.3UD		<1.3UD	
PCB (Aroclor 1242)	8082	(mg/kg)		<7.2UD		<2.8UD		<7.4UD		<6.8UD		<6.8UD		<1.3UD		<1.3UD		<1.3UD		<1.3UD	
PCB (Aroclor 1248)	8082	(mg/kg)		<7.2UD		<2.8UD		<7.4UD		<6.8UD		<6.8UD		<1.3UD		<1.3UD		<1.3UD		<1.3UD	
PCB (Aroclor 1244)	8082	(mg/kg)		<7.2UD		<2.8UD		<7.4UD		<6.8UD		<6.8UD		<1.3UD		<1.3UD		<1.3UD		<1.3UD	
PCB (Aroclor 1260)	8082	(mg/kg)		14D		9.5D		9.9D		9.5D		9.5D		1.4D		1.4D		1.4D		1.4D	
PCB( Total Aroclors)	8082	(mg/kg)		14D		9.5D		9.9D		9.5D		9.5D		1.4D		1.4D		1.4D		1.4D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

Page 22 of 31

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-104	SS-105	SS-106	SS-107	SS-108
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	04/25/2007	04/25/2007	04/25/2007	04/25/2007	04/25/2007
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (ft@):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<1.4UD	<6.3UD	<6.6UD	<15UD	<13UD
PCB (Aroclor 1232)	8082	(mg/kg)		<1.4UD	<6.3UD	<6.6UD	<15UD	<13UD
PCB (Aroclor 1242)	8082	(mg/kg)		<1.4UD	<6.3UD	<6.6UD	<15UD	<13UD
PCB (Aroclor 1248)	8082	(mg/kg)		<1.4UD	<6.3UD	<6.6UD	<15UD	<13UD
PCB (Aroclor 1244)	8082	(mg/kg)		<1.4UD	<6.3UD	<6.6UD	<15UD	<13UD
PCB (Aroclor 1260)	8082	(mg/kg)		4.2D	15D	16D	25D	22D
PCB( Total Aroclors)	8082	(mg/kg)		4.2D	15D	16D	25D	22D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-109	SS-110	SS-111	SS-112	SS-113
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	04/25/2007	04/25/2007	04/25/2007	04/25/2007	04/25/2007
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (ft@):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<7.7UD	<14UD	<13UD	<5.8UD	<31UD
PCB (Aroclor 1232)	8082	(mg/kg)		<7.7UD	<14UD	<13UD	<5.8UD	<31UD
PCB (Aroclor 1242)	8082	(mg/kg)		<7.7UD	<14UD	<13UD	<5.8UD	<31UD
PCB (Aroclor 1248)	8082	(mg/kg)		<7.7UD	<14UD	<13UD	<5.8UD	<31UD
PCB (Aroclor 1244)	8082	(mg/kg)		<7.7UD	<14UD	<13UD	<5.8UD	<31UD
PCB (Aroclor 1260)	8082	(mg/kg)		13D	37D	27D	11D	97D
PCB( Total Aroclors)	8082	(mg/kg)		13D	37D	27D	11D	97D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

Page 23 of 31

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-114	SAMPLE DATE:	04/25/2007	SS-115	SAMPLE DATE:	04/25/2007	SS-116	SAMPLE DATE:	04/25/2007	SS-117	SAMPLE DATE:	04/25/2007	SS-118	SAMPLE DATE:	04/25/2007	
			SAMPLE DEPTH (fbg):																
PCB (Aroclor 1016)	8082	(mg/kg)		<1.4UD		<29UD		<1.4UD		<30UD		<30UD		<7.3UD		<7.3UD		<7.3UD	
PCB (Aroclor 1221)	8082	(mg/kg)		<1.4UD		<29UD		<1.4UD		<30UD		<30UD		<7.3UD		<7.3UD		<7.3UD	
PCB (Aroclor 1232)	8082	(mg/kg)		<1.4UD		<29UD		<1.4UD		<30UD		<30UD		<7.3UD		<7.3UD		<7.3UD	
PCB (Aroclor 1242)	8082	(mg/kg)		<1.4UD		<29UD		<1.4UD		<30UD		<30UD		<7.3UD		<7.3UD		<7.3UD	
PCB (Aroclor 1248)	8082	(mg/kg)		<1.4UD		<29UD		<1.4UD		<30UD		<30UD		<7.3UD		<7.3UD		<7.3UD	
PCB (Aroclor 1244)	8082	(mg/kg)		<1.4UD		<29UD		<1.4UD		<30UD		<30UD		<7.3UD		<7.3UD		<7.3UD	
PCB (Aroclor 1260)	8082	(mg/kg)		53D		81D		53D		66D		66D		13D		13D		21DB	
PCB( Total Aroclors)	8082	(mg/kg)		53D		81D		53D		66D		66D		13D		13D		21D	
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-119	SAMPLE DATE:	04/25/2007	SS-120	SAMPLE DATE:	04/25/2007	SS-121	SAMPLE DATE:	04/25/2007	SS-122	SAMPLE DATE:	04/25/2007	SS-123	SAMPLE DATE:	04/25/2007	
			SAMPLE DEPTH (fbg):																
PCB (Aroclor 1016)	8082	(mg/kg)		<120UD		<810UD		<120UD		<810UD		<810UD		<160UD		<160UD		<72UD	
PCB (Aroclor 1221)	8082	(mg/kg)		<120UD		<810UD		<120UD		<810UD		<810UD		<160UD		<160UD		<72UD	
PCB (Aroclor 1232)	8082	(mg/kg)		<120UD		<810UD		<120UD		<810UD		<810UD		<160UD		<160UD		<72UD	
PCB (Aroclor 1242)	8082	(mg/kg)		<120UD		<810UD		<120UD		<810UD		<810UD		<160UD		<160UD		<72UD	
PCB (Aroclor 1248)	8082	(mg/kg)		<120UD		<810UD		<120UD		<810UD		<810UD		<160UD		<160UD		<72UD	
PCB (Aroclor 1244)	8082	(mg/kg)		<120UD		<810UD		<120UD		<810UD		<810UD		<160UD		<160UD		<72UD	
PCB (Aroclor 1260)	8082	(mg/kg)		230DB		3100DB		230DB		760DB		760DB		340D		340D		<72UD	
PCB( Total Aroclors)	8082	(mg/kg)		230D		3100D		230D		760D		760D		820D		820D		220D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-124	SS-125	SS-126	SS-127	SS-128
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	04/25/2007	04/25/2007	04/25/2007	04/25/2007	04/25/2007
			SAMPLE DEPTH (ft@g)					
PCB (Aroclor 1016)	8082	(mg/kg)	<200UD	<150UD	<140UD	<31UD	<30UD	
PCB (Aroclor 1221)	8082	(mg/kg)	<200UD	<150UD	<140UD	<31UD	<30UD	
PCB (Aroclor 1232)	8082	(mg/kg)	<200UD	<150UD	<140UD	<31UD	<30UD	
PCB (Aroclor 1242)	8082	(mg/kg)	<200UD	<150UD	<140UD	<31UD	<30UD	
PCB (Aroclor 1248)	8082	(mg/kg)	<200UD	<150UD	<140UD	<31UD	<30UD	
PCB (Aroclor 1244)	8082	(mg/kg)	<200UD	<150UD	<140UD	<31UD	<30UD	
PCB (Aroclor 1260)	8082	(mg/kg)	680DB	450DB	580DB	100DB	110DB	
PCB( Total Aroclors)	8082	(mg/kg)	680D	450D	580D	100D	110D	
			SAMPLE LOCATION:	SS-129	SS-130	SS-131	SS-132	SS-133
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	04/25/2007	04/25/2007	04/25/2007	04/25/2007	04/25/2007
			SAMPLE DEPTH (ft@g)					
PCB (Aroclor 1016)	8082	(mg/kg)	<29UD	<130UD	<580UD	<20UD	<7.8UD	
PCB (Aroclor 1221)	8082	(mg/kg)	<29UD	<130UD	<580UD	<20UD	<7.8UD	
PCB (Aroclor 1232)	8082	(mg/kg)	<29UD	<130UD	<580UD	<20UD	<7.8UD	
PCB (Aroclor 1242)	8082	(mg/kg)	<29UD	<130UD	<580UD	<20UD	<7.8UD	
PCB (Aroclor 1248)	8082	(mg/kg)	<29UD	<130UD	<580UD	<20UD	<7.8UD	
PCB (Aroclor 1244)	8082	(mg/kg)	<29UD	<130UD	1000D	<20UD	<7.8UD	
PCB (Aroclor 1260)	8082	(mg/kg)	110DB	590DB	1200DB	59DB	19DB	
PCB( Total Aroclors)	8082	(mg/kg)	110D	590D	2200D	59D	19D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 25 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-134	SS-135	SS-136	SS-137	SS-138
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	04/25/2007	04/25/2007	04/25/2007	04/25/2007	04/25/2007
			SAMPLE DEPTH (fbg):					
PCB (Aroclor 1016)	8082	(mg/kg)	<1300UD	<27UD	<15UD	<26UD	<73UD	
PCB (Aroclor 1221)	8082	(mg/kg)	<1300UD	<27UD	<15UD	<26UD	<73UD	
PCB (Aroclor 1232)	8082	(mg/kg)	<1300UD	<27UD	<15UD	<26UD	<73UD	
PCB (Aroclor 1242)	8082	(mg/kg)	<1300UD	<27UD	<15UD	<26UD	<73UD	
PCB (Aroclor 1248)	8082	(mg/kg)	<1300UD	<27UD	<15UD	<26UD	<73UD	
PCB (Aroclor 1244)	8082	(mg/kg)	<1300UD	<27UD	<15UD	<26UD	<73UD	
PCB (Aroclor 1260)	8082	(mg/kg)	210DB	120DB	79DBE	98DB	170DB	
PCB( Total Aroclors)	8082	(mg/kg)	210D	120D	79DE	98D	170D	
			SAMPLE LOCATION:	SS-139	SS-140	SS-141	SS-142	SS-143
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	04/25/2007	04/26/2007	04/26/2007	04/26/2007	04/27/2007
			SAMPLE DEPTH (fbg):					
PCB (Aroclor 1016)	8082	(mg/kg)	<1300UD	<80UD	<40UD	<16UD	<8.0UD	
PCB (Aroclor 1221)	8082	(mg/kg)	<1300UD	<100UD	<50UD	<20UD	<10UD	
PCB (Aroclor 1232)	8082	(mg/kg)	<1300UD	<120UD	<62UD	<25UD	<12UD	
PCB (Aroclor 1242)	8082	(mg/kg)	<1300UD	<82UD	<41UD	<16UD	<8.2UD	
PCB (Aroclor 1248)	8082	(mg/kg)	<1300UD	<58UD	<29UD	<12UD	<5.8UD	
PCB (Aroclor 1244)	8082	(mg/kg)	<1300UD	1200D	580D	200D	140D	
PCB (Aroclor 1260)	8082	(mg/kg)	3800DB	1300D	770D	310D	160D	
PCB( Total Aroclors)	8082	(mg/kg)	3800D	2500D	1400D	510D	300D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 26 of 31

ANALYTICAL CHEMISTRY REPORT  
EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-144 04/27/2007	SS-145 04/27/2007	SS-146 04/27/2007	SS-147 04/27/2007	SS-148 04/27/2007
SAMPLE DEPTH (fbg)								
PCB (Aroclor 1016)	8082	(mg/kg)	<80UD	0.00	<80UD	0.00	<80UD	0.00
PCB (Aroclor 1221)	8082	(mg/kg)	<100UD	<100UD	<100UD	<100UD	<100UD	<80UD
PCB (Aroclor 1232)	8082	(mg/kg)	<120UD	<120UD	<120UD	<120UD	<120UD	<100UD
PCB (Aroclor 1242)	8082	(mg/kg)	<82UD	<82UD	<82UD	<82UD	<82UD	<82UD
PCB (Aroclor 1248)	8082	(mg/kg)	<58UD	<58UD	<58UD	<58UD	<58UD	<58UD
PCB (Aroclor 1244)	8082	(mg/kg)	790D	760D	780D	780D	650D	530D
PCB (Aroclor 1260)	8082	(mg/kg)	1600D	1600D	880D	880D	970D	920D
PCB( Total Aroclors)	8082	(mg/kg)	2400D	2400D	1700D	1700D	1600D	1400D
SAMPLE DEPTH (fbg)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	SS-149 04/27/2007	SS-150 04/27/2007	SS-151 04/27/2007	SS-152 04/27/2007	SS-153 04/27/2007
PCB (Aroclor 1016)	8082	(mg/kg)	<200UD	0.00	<200UD	<210UD	<46UD	<17UD
PCB (Aroclor 1221)	8082	(mg/kg)	<240UD	0.00	<240UD	<260UD	<58UD	<21UD
PCB (Aroclor 1232)	8082	(mg/kg)	<300UD	0.00	<320UD	<71UD	<71UD	<1.0UD
PCB (Aroclor 1242)	8082	(mg/kg)	<200UD	0.00	<210UD	<47UD	<47UD	<26UD
PCB (Aroclor 1248)	8082	(mg/kg)	<140UD	0.00	<150UD	<33UD	<33UD	<12UD
PCB (Aroclor 1244)	8082	(mg/kg)	1600D	1800D	610D	610D	190D	5.6D
PCB (Aroclor 1260)	8082	(mg/kg)	2600D	3100D	630D	630D	280D	5.2D
PCB( Total Aroclors)	8082	(mg/kg)	4200D	4900D	1200D	1200D	470D	11D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 27 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-154	SS-155	SS-156	SS-157	SS-158
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	04/27/2007	04/27/2007	04/27/2007	04/27/2007	04/27/2007
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (ft@):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<0.23UD	<42UD	<43UD	<1.1UD	<24UD
PCB (Aroclor 1232)	8082	(mg/kg)		<0.29UD	<53UD	<53UD	<1.4UD	<30UD
PCB (Aroclor 1242)	8082	(mg/kg)		<0.36UD	<65UD	<66UD	<1.7UD	<37UD
PCB (Aroclor 1248)	8082	(mg/kg)		<0.24UD	<43UD	<44UD	<1.1UD	<25UD
PCB (Aroclor 1244)	8082	(mg/kg)		<0.17UD	<30UD	<31UD	<0.79UD	<18UD
PCB (Aroclor 1254)	8082	(mg/kg)		2.5D	350D	460D	7.2D	260D
PCB (Aroclor 1260)	8082	(mg/kg)		4.6D	610D	760D	13D	420D
PCB( Total Aroclors)	8082	(mg/kg)		7.1D	960D	1200D	20D	680D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-159	SS-160	SS-161	SS-162	SS-163
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	04/27/2007	04/27/2007	04/27/2007	04/27/2007	05/07/2007
PCB (Aroclor 1016)	8082	(mg/kg)	SAMPLE DEPTH (ft@):	0.00	0.00	0.00	0.00	0.00
PCB (Aroclor 1221)	8082	(mg/kg)		<39UD	>210UD	<1.0UD	<0.22UD	<8.0UD
PCB (Aroclor 1232)	8082	(mg/kg)		<49UD	>260UD	<1.3UD	<0.28UD	<10UD
PCB (Aroclor 1242)	8082	(mg/kg)		<61UD	>320UD	<1.6UD	<0.34UD	<12UD
PCB (Aroclor 1248)	8082	(mg/kg)		<40UD	>210UD	<1.1UD	<0.23UD	<8.2UD
PCB (Aroclor 1244)	8082	(mg/kg)		<29UD	<150UD	<0.74UD	<0.16UD	<5.8UD
PCB (Aroclor 1254)	8082	(mg/kg)		<29UD	1400D	11D	3.5D	<5.9UD
PCB (Aroclor 1260)	8082	(mg/kg)		510D	2100D	17D	5.3D	87D
PCB( Total Aroclors)	8082	(mg/kg)		510D	3500D	28D	8.8D	87D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

Page 28 of 31

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-164	SS-165	SS-166	SS-167	SS-168
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	05/07/2007	05/07/2007	05/07/2007	05/07/2007	05/07/2007
			SAMPLE DEPTH (fbg):					
PCB (Aroclor 1016)	8082	(mg/kg)	<0.58UD	<4.0UD	<8.0UD	<8.0UD	<8.0UD	<8.0UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.72UD	<5.0UD	<10UD	<10UD	<10UD	<10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.89UD	<6.2UD	<12UD	<12UD	<12UD	<12UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.59UD	<4.1UD	<8.2UD	<8.2UD	<8.2UD	<8.2UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.42UD	<2.9UD	<5.8UD	<5.8UD	<5.8UD	<5.8UD
PCB (Aroclor 1244)	8082	(mg/kg)	<0.42UD	<2.9UD	<5.9UD	<5.9UD	<5.9UD	<5.9UD
PCB (Aroclor 1260)	8082	(mg/kg)	13D	22JD	9ID	98D	89D	89D
PCB( Total Aroclors)	8082	(mg/kg)	13D	22D	9ID	98D	89D	89D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-169	SS-170	SS-171	SS-172	SS-173
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	05/07/2007	05/07/2007	05/07/2007	05/07/2007	05/07/2007
			SAMPLE DEPTH (fbg):					
PCB (Aroclor 1016)	8082	(mg/kg)	<0.80UD	<4.0UD	<8.0UD	<8.0UD	<4.0UD	<16UD
PCB (Aroclor 1221)	8082	(mg/kg)	<1.0UD	<5.0UD	<10UD	<10UD	<5.0UD	<20UD
PCB (Aroclor 1232)	8082	(mg/kg)	<1.2UD	<6.2UD	<12UD	<12UD	<6.2UD	<25UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.82UD	<4.1UD	<8.2UD	<8.2UD	<4.1UD	<16UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.58UD	<2.9UD	<5.8UD	<5.8UD	<2.9UD	<12UD
PCB (Aroclor 1244)	8082	(mg/kg)	<0.59UD	<2.9UD	<5.9UD	<5.9UD	<2.9UD	<12UD
PCB (Aroclor 1260)	8082	(mg/kg)	8.3D	37D	96D	35D	410D	410D
PCB( Total Aroclors)	8082	(mg/kg)	8.3D	37D	96D	35D	410D	410D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

Page 29 of 31

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-174	SS-175	SS-176	SS-177	SS-178
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	05/07/2007	05/07/2007	05/07/2007	05/07/2007	05/07/2007
			SAMPLE DEPTH (fbg):					
PCB (Aroclor 1016)	8082	(mg/kg)	<16UD	<0.80UD	<40UD	<400UD	<800UD	<80UD
PCB (Aroclor 1221)	8082	(mg/kg)	<20UD	<1.0UD	<50UD	<1000UD	<100UD	<100UD
PCB (Aroclor 1232)	8082	(mg/kg)	<25UD	<1.2UD	<62UD	<1200UD	<120UD	<120UD
PCB (Aroclor 1242)	8082	(mg/kg)	<16UD	<0.82UD	<41UD	<820UD	<82UD	<82UD
PCB (Aroclor 1248)	8082	(mg/kg)	<12UD	<0.58UD	<29UD	<580UD	<58UD	<58UD
PCB (Aroclor 1244)	8082	(mg/kg)	<12UD	<0.59UD	<29UD	<590UD	<59UD	<59UD
PCB (Aroclor 1260)	8082	(mg/kg)	320D	10D	370D	1.2E+4D	1100D	1100D
PCB( Total Aroclors)	8082	(mg/kg)	320D	10D	370D	12000D	1100D	1100D
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-179	SS-180	SS-181	SS-182	SS-183
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	05/07/2007	05/07/2007	05/07/2007	05/07/2007	05/07/2007
			SAMPLE DEPTH (fbg):					
PCB (Aroclor 1016)	8082	(mg/kg)	<80UD	<4.0UD	<16UD	<16UD	<16UD	<50UD
PCB (Aroclor 1221)	8082	(mg/kg)	<100UD	<5.0UD	<20UD	<20UD	<20UD	<50UD
PCB (Aroclor 1232)	8082	(mg/kg)	<120UD	<6.2UD	<25UD	<25UD	<25UD	<50UD
PCB (Aroclor 1242)	8082	(mg/kg)	<82UD	<4.1UD	<16UD	<16UD	<16UD	<50UD
PCB (Aroclor 1248)	8082	(mg/kg)	<58UD	<2.9UD	<12UD	<12UD	<12UD	<50UD
PCB (Aroclor 1244)	8082	(mg/kg)	<59UD	<2.9UD	<12UD	<12UD	<12UD	<50UD
PCB (Aroclor 1260)	8082	(mg/kg)	990D	42D	210D	410D	410D	160D
PCB( Total Aroclors)	8082	(mg/kg)	990D	42D	210D	410D	410D	160D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 30 of 31

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-184	SS-185
			SAMPLE DATE:	05/07/2007	05/07/2007
			SAMPLE DEPTH (fbg):		
PCB (Aroclor 1016)	8082	(mg/kg)	<250UD	<500UD	<500UD
PCB (Aroclor 1221)	8082	(mg/kg)	<250UD	<500UD	<500UD
PCB (Aroclor 1232)	8082	(mg/kg)	<250UD	<500UD	<500UD
PCB (Aroclor 1242)	8082	(mg/kg)	<250UD	<500UD	<500UD
PCB (Aroclor 1248)	8082	(mg/kg)	<250UD	<500UD	<500UD
PCB (Aroclor 1254)	8082	(mg/kg)	<250UD	<500UD	<500UD
PCB (Aroclor 1260)	8082	(mg/kg)	520D	1100D	
PCB( Total Aroclors)	8082	(mg/kg)	520D	1100D	

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-023	SS-024	SS-025	SS-026	SS-027
			SAMPLE DATE:	11/27/2006	11/27/2006	11/27/2006	11/27/2006	11/28/2006
			SAMPLE DEPTH (fbg):					
Total Solids	846	(%)	0.00	0.00	0.00	0.00	0.00	0.00
			- - -	- - -	- - -	- - -	- - -	92.8

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SS-028	SS-029	SS-030	SS-031	SS-032
			SAMPLE DATE:	11/28/2006	11/28/2006	11/28/2006	11/28/2006	11/28/2006
			SAMPLE DEPTH (fbg):					
Total Solids	846	(%)	0.00	0.00	0.00	0.00	0.00	0.00
			91.8	93.2	92.2	88.9	90.9	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-033	SS-034	SS-035	SS-036	SS-037
Total Solids		846 (%)	SAMPLE DEPTH (ft@g)		0.00	0.00	0.00	0.00	0.00
			SAMPLE LOCATION:	SAMPLE DATE:	93.2	89.9	92.2	92.2	90.9
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SS-038	SS-039	SS-040	SS-041	SS-042
Total Solids		846 (%)	SAMPLE DEPTH (ft@g)		0.00	0.00	0.00	0.00	0.00
			SAMPLE LOCATION:	SAMPLE DATE:	90	93.6	91.1	93.4	96.5

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.

**ANALYTICAL CHEMISTRY REPORT**

React Environmental  
Professional Services Group, Inc.

**FORMER SCHMIDT'S BREWERY**  
**NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA**

**MATRIX: SOIL****METHODS:**

- EPA Method 160.3 - Total Residue by Drying Oven
- EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry
- EPA Method 7060A - Arsenic by GFAA
- EPA Method 7471A - Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)
- EPA Method 8082 - Polychlorinated Biphenyls (PCBs)
- EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
- EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

**ANALYTICAL CHEMISTRY REPORT**

Project No.:006651

Page 1 of 6

**EPA Method 160.3 - Total Residue by Drying Oven**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C	STOCKPILE-D	STOCKPILE-F
			SAMPLE DATE:	05/17/2006	05/12/2006	05/17/2006
			SAMPLE DEPTH (ft@g)	0.00	0.00	0.00
Total Solids		160.3 (%)		87.5	89.7	89.5

**EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C	STOCKPILE-D	STOCKPILE-F
			SAMPLE DATE:	05/17/2006	05/12/2006	05/17/2006
			SAMPLE DEPTH (ft@g)	0.00	0.00	0.00

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 2 of 6

**EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C	STOCKPILE-D	STOCKPILE-F
			SAMPLE DATE:	05/17/2006	05/12/2006	05/17/2006
Lead	6010B	(mg/kg)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00
Barium	6010B	(mg/kg)		54	66	190
Cadmium	6010B	(mg/kg)		39	60	98
Chromium	6010B	(mg/kg)		<1U	<1.0U	<1U
Selenium	6010B	(mg/kg)		10	16	64
Silver	6010B	(mg/kg)		<12U	<12U	<12U
				>2.5U	>2.5U	>2.5U

**EPA Method 7060A - Arsenic by GFAA**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C	STOCKPILE-D	STOCKPILE-F
			SAMPLE DATE:	05/17/2006	05/12/2006	05/17/2006
Arsenic	7060A	(mg/kg)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00
				5.2D	3.7D	6.4D

**EPA Method 7471A - Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C	STOCKPILE-D	STOCKPILE-F
			SAMPLE DATE:	05/17/2006	05/12/2006	05/17/2006
Mercury	7471A	(mg/kg)	SAMPLE DEPTH (fbg):	0.00	0.00	0.00
				5.04D	2.49D	0.491

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C 05/17/2006	STOCKPILE-D 05/12/2006	STOCKPILE-F 05/17/2006
SAMPLE DEPTH (ft@g)						
PCB (Aroclor 1016)	8082	(mg/kg)	<50UD	<10UD	<10UD	<15UD
PCB (Aroclor 1221)	8082	(mg/kg)	<50UD	<10UD	<10UD	<15UD
PCB (Aroclor 1232)	8082	(mg/kg)	<50UD	<10UD	<10UD	<15UD
PCB (Aroclor 1242)	8082	(mg/kg)	<50UD	<10UD	<10UD	<15UD
PCB (Aroclor 1254)	8082	(mg/kg)	<50UD	<10UD	<10UD	0.94DE
PCB (Aroclor 1260)	8082	(mg/kg)	110D	32D	0.41D	
PCB( Total Aroclors)	8082	(ug/kg)	110000D	32000D	1350E	
PCB (Aroclor 1248)	8082	(mg/kg)	<50UD	<10UD	<15UD	

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C 05/17/2006	STOCKPILE-D 05/12/2006	STOCKPILE-F 05/17/2006
SAMPLE DEPTH (ft@g)						
1,1,1-trichloroethane	8260B	(ug/kg)	>2U	<2.0U	<2U	<2U
1,1,2,2-Tetrachloroethane	8260B	(ug/kg)	>2U	<2.0U	<2U	<2U
1,1,2-Trichloroethane	8260B	(ug/kg)	>2U	<2.0U	<2U	<2U
1,1-Dichloroethane	8260B	(ug/kg)	>2U	<2.0U	<2U	<2U
1,1-Dichloroethylene	8260B	(ug/kg)	>2U	<2.0U	<2U	<2U
1,2-Dichloroethane	8260B	(ug/kg)	>2U	<2.0U	<2U	<2U
1,2-Dichloropropane	8260B	(ug/kg)	>2U	<2.0U	<2U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 4 of 6

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: STOCKPILE-C 05/17/2006	SAMPLE DATE: STOCKPILE-D 05/17/2006	STOCKPILE-F 05/17/2006
SAMPLE DEPTH (ft@g)					
2-Hexanone	8260B	(ug/kg)	<10U	<10U	<10U
Acetone	8260B	(ug/kg)	<100U	<100U	<100U
Benzene	8260B	(ug/kg)	3.7	3.1	1.1
Bromodichloromethane	8260B	(ug/kg)	<1U	<1.0U	<1U
Bromoform	8260B	(ug/kg)	<2U	<2.0U	<2U
Carbon disulfide	8260B	(ug/kg)	<15U	<15U	<15U
Carbon tetrachloride	8260B	(ug/kg)	<2U	<2.0U	<2U
Chlorobenzene	8260B	(ug/kg)	<2U	<2.0U	<2U
Chloroethane	8260B	(ug/kg)	<4U	<4.0U	<4U
Chloroform	8260B	(ug/kg)	<2U	<2.0U	<2U
cis-1,2-Dichloroethylene	8260B	(ug/kg)	<2U	<2.0U	<2U
cis-1,3-Dichloropropene	8260B	(ug/kg)	<2U	<2.0U	<2U
Dibromochloromethane	8260B	(ug/kg)	<2U	<2.0U	<2U
Ethylbenzene	8260B	(ug/kg)	<2U	<2.0U	<2U
Methyl bromide	8260B	(ug/kg)	<3U	<3.0U	<3U
Methyl chloride	8260B	(ug/kg)	<10U	<10U	<10U
Methyl ethyl ketone	8260B	(ug/kg)	<100U	<100U	<100U
Methyl isobutylketone (MIBK)	8260B	(ug/kg)	<10U	<10U	<10U
Methyl tert-butyl ether	8260B	(ug/kg)	3.2	<2.0U	4.2
Methylene chloride	8260B	(ug/kg)	<30U	<30U	<30U
Styrene	8260B	(ug/kg)	<2U	<2.0U	<2U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 5 of 6

**EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C	STOCKPILE-D	STOCKPILE-F
			SAMPLE DATE:	05/17/2006	05/12/2006	05/17/2006
			SAMPLE DEPTH (ft@g)			
Tetrachloroethylene	8260B	(ug/kg)		0.00	0.00	0.00
Toluene	8260B	(ug/kg)		2.2	<1.0U	<1U
Total TICs - 8260	8260B	(ug/kg)		2.3	>2.0U	<2U
trans-1,2-Dichloroethylene	8260B	(ug/kg)		81.5	---	10.9
trans-1,3-Dichloropropene	8260B	(ug/kg)		<2U	<2.0U	<2U
Trichloroethylene	8260B	(ug/kg)		<2U	<2.0U	<2U
Trichlorofluoromethane	8260B	(ug/kg)		<1U	<1.0U	<1U
Vinyl chloride	8260B	(ug/kg)		<2U	<2.0U	<2U
Xylene (total)	8260B	(ug/kg)		<2U	<2.0U	<2U
				<6U	<6U	<6U

**EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C	STOCKPILE-D	STOCKPILE-F
			SAMPLE DATE:	05/17/2006	05/12/2006	05/17/2006
			SAMPLE DEPTH (ft@g)			
Benz(a)anthracene	8270D	(ug/kg)		0.00	0.00	0.00
Benz(a)pyrene	8270D	(ug/kg)		2800D	2000D	3700D
Benz(b)fluoranthene	8270D	(ug/kg)		3300D	2200D	4100D
Dibenz(a,h)anthracene	8270D	(ug/kg)		4000D	2700D	5000D
Naphthalene	8270D	(ug/kg)		<1000UD	<500UD	<1000UD
Acenaphthene	8270D	(ug/kg)		---	<500UD	<1000UD
				<1000UD	<500UD	<1000UD

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8270D - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	STOCKPILE-C	STOCKPILE-D	STOCKPILE-F
			SAMPLE DATE:	05/17/2006	05/12/2006	05/17/2006
			SAMPLE DEPTH (ft@g):			
Acenaphthylene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	<1000UD
Anthracene	8270D	(ug/kg)	1100D	760D	1400D	
Benzog(h)perylene	8270D	(ug/kg)	2300D	1600D	2700D	
Benz(k)fluoranthene	8270D	(ug/kg)	1400D	890D	1700D	
Chrysene	8270D	(ug/kg)	2600D	1700D	3500D	
Fluoranthene	8270D	(ug/kg)	6300D	4400D	8200D	
Fluorene	8270D	(ug/kg)	<1000UD	<500UD	<1000UD	
Indeno(1,2,3-cd)pyrene	8270D	(ug/kg)	2200D	1600D	2800D	
Phenanthrene	8270D	(ug/kg)	3600D	2300D	5000D	
Pyrene	8270D	(ug/kg)	5300D	3000D	6600D	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 16

## ANALYTICAL CHEMISTRY REPORT

### MATRIX: SOIL

#### METHODS:

EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

EPA Method 8270C - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

## FORMER SCHMIDT'S BREWERY NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA

REPSG PROJECT No. 006651

Project No.:006651

Page 1 of 16

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	TP-001	TP-002	TP-002	TP-003
			SAMPLE DEPTH (ft/ug):		4.00	16.00	4.00	4.00
Arsenic	6010B	(mg/kg)		U	U	U	U	U
Lead	6010B	(mg/kg)		14.602	1.517	23.585	0.624	5.657
Barium	6010B	(mg/kg)		7.522	2.885	10.341	2.648	6.122
Cadmium	6010B	(mg/kg)		1.239	1.132	1.024	1.787	1.127
Chromium	6010B	(mg/kg)		2.854	2.35	2.756	2.67	2.453
Mercury	6010B	(mg/kg)		0.25	U	0.24	U	0.11
Selenium	6010B	(mg/kg)		U	U	U	U	U
Silver	6010B	(mg/kg)		0.708	0.021	U	U	0.133

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor.  $\underline{B}$  = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	TP-003 10/24/2002	TP-004 10/24/2002	TP-004 10/24/2002	TP-005 10/24/2002	TP-005 10/24/2002
SAMPLE DEPTH (ft/eg):								
Arsenic	6010B	(mg/kg)	U	4.00	16.00	11.00	18.00	- - -
Lead	6010B	(mg/kg)	0.349	0.832	0.553	1.88	0.72	- - -
Barium	6010B	(mg/kg)	2.312	1.972	1.906	- - -	- - -	- - -
Cadmium	6010B	(mg/kg)	1.112	1.139	1.168	- - -	- - -	- - -
Chromium	6010B	(mg/kg)	1.854	2.344	2.5	- - -	- - -	- - -
Mercury	6010B	(mg/kg)	U	0.42	U	- - -	- - -	- - -
Selenium	6010B	(mg/kg)	U	U	U	- - -	- - -	- - -
Silver	6010B	(mg/kg)	U	U	U	- - -	- - -	- - -
SAMPLE DEPTH (ft/eg):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	TP-006 10/24/2002	TP-006 10/24/2002	TP-007 10/24/2002	TP-007 10/24/2002	TP-008 10/24/2002
Arsenic	6010B	(mg/kg)	U	4.00	16.00	4.00	16.00	4.00
Lead	6010B	(mg/kg)	1.596	0.585	9.31	2.998	0.641	U
Barium	6010B	(mg/kg)	2.075	2.317	18.75	7.736	1.998	
Cadmium	6010B	(mg/kg)	0.867	0.71	1.638	2.809	1.307	
Chromium	6010B	(mg/kg)	2.03	1.608	3.966	5.388	2.417	
Mercury	6010B	(mg/kg)	0.62	U	0.03	U	0.02	
Selenium	6010B	(mg/kg)	U	U	U	U	U	
Silver	6010B	(mg/kg)	U	U	0.022	U	U	

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 6010B - Metals and Trace Elements by ICP/Atomic Emission Spectrometry

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	TP-008	TP-009	TP-009	TP-010	TP-010
SAMPLE DEPTH (ft/eg):									
Arsenic	6010B	(mg/kg)	U	10/24/2002	4.00	16.00	14.00	19.00	U
Lead	6010B	(mg/kg)	3.436	10.751	26.742	6.657	1.005		
Barium	6010B	(mg/kg)	2.243	9.608	15.393	5.233	3.979		
Cadmium	6010B	(mg/kg)	1.214	1.122	1.124	0.826	1.128		
Chromium	6010B	(mg/kg)	4.136	2.963	3.73	2.309	5.005		
Mercury	6010B	(mg/kg)	0.03	0.01	0.24	U	U		
Selenium	6010B	(mg/kg)	U	U	U	U	U		
Silver	6010B	(mg/kg)	U	U	U	U	U		
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	TP-012	TP-012	TP-012	TP-012	TP-012
SAMPLE DEPTH (ft/eg):									
Arsenic	6010B	(mg/kg)	U	10/24/2002	4.00	16.00	16.00	16.00	U
Lead	6010B	(mg/kg)	0.809		1.274				
Barium	6010B	(mg/kg)	3.805		0.904				
Cadmium	6010B	(mg/kg)	2.164		1.583				
Chromium	6010B	(mg/kg)	3.662		3.001				
Mercury	6010B	(mg/kg)	0.14		0.06				
Selenium	6010B	(mg/kg)	U		U				
Silver	6010B	(mg/kg)	U		U				

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	TP-001 10/24/2002	TP-002 10/24/2002	TP-003 10/24/2002
			SAMPLE DEPTH (ft@g):			
PCB (Aroclor 1016)	8082	(mg/kg)	U	U	0.18	U
PCB (Aroclor 1221)	8082	(mg/kg)	U	U	U	U
PCB (Aroclor 1232)	8082	(mg/kg)	U	U	U	U
PCB (Aroclor 1242)	8082	(mg/kg)	U	U	U	U
PCB (Aroclor 1248)	8082	(mg/kg)	U	U	U	U
PCB (Aroclor 1244)	8082	(mg/kg)	U	U	U	U
PCB (Aroclor 1260)	8082	(mg/kg)	U	U	0.15	U
PCB( Total Aroclors)	8082	(mg/kg)	U	U	0.33	U
			SAMPLE LOCATION: SAMPLE DATE:	TP-003 10/24/2002	TP-004 10/24/2002	TP-005 10/24/2002
			SAMPLE DEPTH (ft@g):			
PCB (Aroclor 1016)	8082	(mg/kg)	U	U	U	---
PCB (Aroclor 1221)	8082	(mg/kg)	U	U	U	---
PCB (Aroclor 1232)	8082	(mg/kg)	U	U	U	---
PCB (Aroclor 1242)	8082	(mg/kg)	U	U	U	---
PCB (Aroclor 1248)	8082	(mg/kg)	U	U	U	---
PCB (Aroclor 1244)	8082	(mg/kg)	U	U	U	---
PCB (Aroclor 1260)	8082	(mg/kg)	U	U	U	---
PCB( Total Aroclors)	8082	(mg/kg)	U	U	U	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	TP-006 10/24/2002	TP-006 10/24/2002	TP-007 10/24/2002	TP-007 10/24/2002	TP-008 10/24/2002
SAMPLE DEPTH (fbg):								
PCB (Aroclor 1016)	8082	(mg/kg)	U	U	0.02	0.167	U	U
PCB (Aroclor 1221)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1232)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1242)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1248)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1244)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1260)	8082	(mg/kg)	U	U	U	U	U	U
PCB( Total Aroclors)	8082	(mg/kg)	U	U	0.02	1.031	U	U
SAMPLE DEPTH (fbg):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	TP-008 10/24/2002	TP-009 10/24/2002	TP-009 10/24/2002	TP-010 10/24/2002	TP-010 10/24/2002
PCB (Aroclor 1016)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1221)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1232)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1242)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1248)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1244)	8082	(mg/kg)	U	U	U	U	U	U
PCB (Aroclor 1260)	8082	(mg/kg)	U	U	0.34	U	U	0.35
PCB( Total Aroclors)	8082	(mg/kg)	U	U	0.34	U	U	0.35

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	TP-012	TP-012
			SAMPLE DATE:	10/24/2002	10/24/2002
			SAMPLE DEPTH (ft@g)		
PCB (Aroclor 1016)	8082	(mg/kg)	4.00		16.00
PCB (Aroclor 1221)	8082	(mg/kg)	U	U	U
PCB (Aroclor 1232)	8082	(mg/kg)	U	U	U
PCB (Aroclor 1242)	8082	(mg/kg)	U	U	U
PCB (Aroclor 1248)	8082	(mg/kg)	U	U	U
PCB (Aroclor 1244)	8082	(mg/kg)	U	U	U
PCB (Aroclor 1250)	8082	(mg/kg)	U	U	U
PCB( Total Aroclors)	8082	(mg/kg)	U	U	U

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	TP-001	TP-001	TP-002	TP-002	TP-003
			SAMPLE DATE:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
			SAMPLE DEPTH (ft@g)					
Naphthalene	8260B	(mg/kg)	4.00	16.00	4.00	16.00	4.00	4.00
Benzene	8260B	(mg/kg)	U	U	U	U	U	U
Benzene, 1,2,4-trimethyl	8260B	(mg/kg)	U	U	U	1.148	U	U
Benzene, 1,3,5-trimethyl-	8260B	(mg/kg)	U	U	U	U	U	U
Ethylbenzene	8260B	(mg/kg)	U	U	U	0.709	U	U
Isopropyl benzene	8260B	(mg/kg)	U	U	U	U	U	U
Methyl bromide	8260B	(mg/kg)	U	U	U	0.237	U	U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 7 of 16

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	TP-001	TP-001	TP-002	TP-002	TP-003
			SAMPLE DATE:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
			SAMPLE DEPTH (ft@g)					
Methyl chloride	8260B	(mg/kg)		U	U	U	U	U
Styrene	8260B	(mg/kg)		U	U	U	U	U
Toluene	8260B	(mg/kg)		U	U	U	U	U
Trichlorofluoromethane	8260B	(mg/kg)		U	U	U	U	U
Xylene (total)	8260B	(mg/kg)		U	U	U	U	U
			SAMPLE LOCATION:	TP-003	TP-004	TP-004	TP-005	TP-005
CONSTITUENT	METHOD	UNITS	SAMPLE DATE:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
			SAMPLE DEPTH (ft@g)					
Naphthalene	8260B	(mg/kg)		U	U	U	21.909	1.711
Benzene	8260B	(mg/kg)		U	U	U		1.585
Benzene, 1,2,4-trimethyl	8260B	(mg/kg)		U	U	U		- - -
Benzene, 1,3,5-trimethyl-	8260B	(mg/kg)		U	U	U		- - -
Ethylbenzene	8260B	(mg/kg)		U	U	U	54.85	4.024
Isopropyl benzene	8260B	(mg/kg)		U	U	U	0.703	0.397
Methyl bromide	8260B	(mg/kg)		U	U	U		- - -
Methyl chloride	8260B	(mg/kg)		U	U	U		- - -
Styrene	8260B	(mg/kg)		U	U	U		- - -
Toluene	8260B	(mg/kg)		U	U	U	16.134	5.608
Trichlorofluoromethane	8260B	(mg/kg)		U	U	U		- - -
Xylene (total)	8260B	(mg/kg)		U	U	U	189.148	19.478

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	TP-006	TP-006	TP-007	TP-007	TP-008
			SAMPLE DATE:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
SAMPLE DEPTH (ft@g):								
Naphthalene	8260B	(mg/kg)	U	0.784	45.761	19.013	19.013	0.363
Benzene	8260B	(mg/kg)	U	U	U	U	U	U
Benzene, 1,2,4-trimethyl	8260B	(mg/kg)	U	U	0.283	0.127	U	U
Benzene, 1,3,5-trimethyl-	8260B	(mg/kg)	U	U	0.145	U	U	U
Ethylbenzene	8260B	(mg/kg)	U	U	U	U	U	U
Isopropyl benzene	8260B	(mg/kg)	U	U	U	U	U	U
Methyl bromide	8260B	(mg/kg)	U	U	U	U	U	U
Methyl chloride	8260B	(mg/kg)	U	U	U	U	U	U
Styrene	8260B	(mg/kg)	U	U	U	U	U	U
Toluene	8260B	(mg/kg)	U	U	U	U	U	U
Trichlorofluoromethane	8260B	(mg/kg)	U	U	U	U	U	U
Xylene (total)	8260B	(mg/kg)	U	U	U	U	0.383U	U
SAMPLE DEPTH (ft@g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	TP-008	TP-009	TP-009	TP-010	TP-010
			SAMPLE DATE:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
Naphthalene	8260B	(mg/kg)	16.00	4.00	16.00	14.00	19.00	19.00
Benzene	8260B	(mg/kg)	2.243	3.903	1.346	1.031	0.596	0.596
Benzene, 1,2,4-trimethyl	8260B	(mg/kg)	U	U	U	U	U	U
Benzene, 1,3,5-trimethyl-	8260B	(mg/kg)	U	U	U	U	U	U
Ethylbenzene	8260B	(mg/kg)	U	U	U	U	U	U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 9 of 16

## EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	TP-008	TP-009	TP-009	TP-010	TP-010
SAMPLE DEPTH (ft@g):									
Isopropyl benzene	8260B	(mg/kg)			U	U	U	U	U
Methyl bromide	8260B	(mg/kg)			U	U	U	U	U
Methyl chloride	8260B	(mg/kg)			U	U	U	U	U
Styrene	8260B	(mg/kg)			U	U	U	U	U
Toluene	8260B	(mg/kg)			U	U	U	U	U
Trichlorofluoromethane	8260B	(mg/kg)			U	0.183	U	U	U
Xylene (total)	8260B	(mg/kg)			U	0.177	U	U	U
SAMPLE DEPTH (ft@g):									
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	TP-012	TP-012	TP-012	TP-012	TP-012
Naphthalene	8260B	(mg/kg)			4.00	16.00	16.00	0.338	0.338
Benzene	8260B	(mg/kg)			U	U	U	U	U
Benzene, 1,2,4-trimethyl	8260B	(mg/kg)			U	U	U	U	U
Ethylbenzene	8260B	(mg/kg)			U	U	U	U	U
Isopropyl benzene	8260B	(mg/kg)			U	U	U	U	U
Methyl bromide	8260B	(mg/kg)			U	U	U	U	U
Methyl chloride	8260B	(mg/kg)			U	U	U	U	U
Styrene	8260B	(mg/kg)			U	U	U	U	U
Toluene	8260B	(mg/kg)			U	U	U	U	U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 10 of 16

**EPA Method 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	TP-012	TP-012
			SAMPLE DATE:	10/24/2002	10/24/2002
			SAMPLE DEPTH (ft/sg)		
Trichlorofluoromethane	8260B	(mg/kg)		4.00	16.00
Xylene (total)	8260B	(mg/kg)		U	U
				U	U

**EPA Method 8270C - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	TP-001	TP-001	TP-002	TP-002	TP-003
			SAMPLE DATE:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
			SAMPLE DEPTH (ft/sg)					
Benz(a)anthracene	8270C	(mg/kg)		1.963	U	15.575	U	0.03
Benz(a)pyrene	8270C	(mg/kg)		1.728	U	13.497	U	U
Benz(b)fluoranthene	8270C	(mg/kg)		2.554	U	14.069	U	U
Dibenzo(a,h)anthracene	8270C	(mg/kg)		0.212	U	1.069	U	U
1,2,4-Trichlorobenzene	8270C	(mg/kg)		U	U	U	U	U
2-Methylnaphthalene	8270C	(mg/kg)		0.099	0.152	0.59	0.024	0.057
Acenaphthene	8270C	(mg/kg)		0.34	0.035	2.746	U	U
Acenaphthylene	8270C	(mg/kg)		0.092	U	0.271	U	U
Anthracene	8270C	(mg/kg)		0.723	U	5.607	U	U
Benz(ghi)perylene	8270C	(mg/kg)		0.883	U	4.375	U	U
Benz(k)fluoranthene	8270C	(mg/kg)		1.972	U	11.489	U	U
Bis(2-ethylhexyl)phthalate(BEHP)	8270C	(mg/kg)		0.121	0.043	1.081	0.04	0.04
Carbazole	8270C	(mg/kg)		0.324	U	2.667	U	U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 11 of 16

## EPA Method 8270C - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	TP-001	TP-001	TP-002	TP-002	TP-003
			SAMPLE DATE:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
SAMPLE DEPTH (fbg)								
Chrysene	8270C	(mg/kg)		4.00	16.00	4.00	16.00	4.00
Dibenzofuran	8270C	(mg/kg)		1.908	U	14.508	U	0.032
Di-n-butyl phthalate	8270C	(mg/kg)		0.171	U	1.378	U	U
Di-n-octyl phthalate	8270C	(mg/kg)		U	U	U	U	U
Fluoranthene	8270C	(mg/kg)		4.061	0.026	30.121	U	0.053
Fluorene	8270C	(mg/kg)		0.292	U	2.653	U	U
Indeno(1,2,3-cd)pyrene	8270C	(mg/kg)		0.846	U	4.214	U	U
Phenanthrene	8270C	(mg/kg)		2.872	0.054	17.238	U	0.036
Pyrene	8270C	(mg/kg)		4.788	0.04	30.498	U	0.037
SAMPLE DEPTH (fbg)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	TP-003	TP-004	TP-004	TP-005	TP-005
			SAMPLE DATE:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
Benzo(a)anthracene	8270C	(mg/kg)		15.00	4.00	16.00	11.00	18.00
Benzo(a)pyrene	8270C	(mg/kg)		U	0.046	U	---	---
Benzo(b)fluoranthene	8270C	(mg/kg)		0.087	0.089	0.068	---	---
Dibenz(a,h)anthracene	8270C	(mg/kg)		U	0.022	0.042	---	---
1,2,4-Trichlorobenzene	8270C	(mg/kg)		U	U	U	---	---
2-Methylnaphthalene	8270C	(mg/kg)		U	U	U	9.29	---
Acenaphthene	8270C	(mg/kg)		U	U	U	0.045	---
Acenaphthylene	8270C	(mg/kg)		U	U	U	---	---

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

Page 12 of 16

## EPA Method 8270C - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	TP-003	TP-004	TP-004	TP-005	TP-005
SAMPLE DEPTH (ft@g):									
Anthracene	8270C	(mg/kg)	U	U	4.00	16.00	11.00	18.00	- - -
Benzo(ghi)perylene	8270C	(mg/kg)	U	U	0.04	0.026	- - -	- - -	- - -
Benzo(k)fluoranthene	8270C	(mg/kg)	U	U	0.104	0.053	- - -	- - -	- - -
Bis(2-ethylhexyl)phthalate(BEHP)	8270C	(mg/kg)	0.062	0.051	0.047	- - -	- - -	- - -	- - -
Carbazole	8270C	(mg/kg)	U	U	U	- - -	- - -	- - -	- - -
Chrysene	8270C	(mg/kg)	U	U	0.045	0.045	- - -	- - -	- - -
Dibenzofuran	8270C	(mg/kg)	U	U	U	- - -	- - -	- - -	- - -
Di-n-butyl phthalate	8270C	(mg/kg)	U	U	U	- - -	U	- - -	- - -
Di-n-octyl phthalate	8270C	(mg/kg)	0.039	U	U	- - -	- - -	- - -	- - -
Fluoranthene	8270C	(mg/kg)	- - -	0.087	0.039	- - -	- - -	- - -	- - -
Fluorene	8270C	(mg/kg)	U	U	0.066	- - -	- - -	- - -	- - -
Indeno(1,2,3-cd)pyrene	8270C	(mg/kg)	U	0.037	0.024	- - -	- - -	- - -	- - -
Phenanthrene	8270C	(mg/kg)	U	0.076	0.177	- - -	- - -	- - -	- - -
Pyrene	8270C	(mg/kg)	U	0.064	0.064	- - -	- - -	- - -	- - -
SAMPLE DEPTH (ft@g):									
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	TP-006	TP-006	TP-007	TP-008	TP-008
Benz(a)anthracene	8270C	(mg/kg)	4.00	16.00	4.00	16.00	4.00	4.00	4.00
Benz(a)apyrene	8270C	(mg/kg)	0.028	0.083	0.207	9.445	9.445	9.445	0.65
Benz(b)fluoranthene	8270C	(mg/kg)	0.089	0.117	0.206	5.815	5.815	5.815	0.104
			U	0.098	0.157	6.449	6.449	6.449	U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8270C - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	TP-006	TP-006	TP-007	TP-007	TP-008
			SAMPLE DEPTH (ft@e)		10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
Dibenz(a,h)anthracene	8270C	(mg/kg)	U	U	4.00	16.00	4.00	16.00	4.00
1,2,4-Trichlorobenzene	8270C	(mg/kg)	U	U	U	U	U	U	U
2-Methylnaphthalene	8270C	(mg/kg)	U	U	U	U	0.241	1.637	U
Acenaphthene	8270C	(mg/kg)	U	U	U	U	0.33	2.815	U
Acenaphthylene	8270C	(mg/kg)	U	U	U	U	U	U	U
Anthracene	8270C	(mg/kg)	U	U	0.023	0.11	3.933	0.031	
Benzo(ghi)perylene	8270C	(mg/kg)	U	U	0.064	0.124	3.146	0.041	
Benzo(k)fluoranthene	8270C	(mg/kg)	U	U	0.091	0.208	4.405	0.09	
Bis(2-ethylhexyl)phthalate(BEHP)	8270C	(mg/kg)	U	U	0.035	0.056	0.042	0.446	0.054
Carbazole	8270C	(mg/kg)	U	U	U	U	3.338	U	
Chrysene	8270C	(mg/kg)	U	U	0.034	0.111	0.217	8.681	0.069
Dibenzofuran	8270C	(mg/kg)	U	U	U	U	2.845	U	
Di-n-butyl phthalate	8270C	(mg/kg)	U	U	U	U	17.543	U	
Di-n-octyl phthalate	8270C	(mg/kg)	U	U	U	U	U	U	
Fluoranthene	8270C	(mg/kg)	U	U	0.051	0.128	0.523	14.341	0.108
Fluorene	8270C	(mg/kg)	U	U	U	0.034	3.2	U	
Indeno(1,2,3-cd)pyrene	8270C	(mg/kg)	U	U	0.061	0.12	2.772	0.041	
Phenanthrene	8270C	(mg/kg)	U	U	0.042	0.079	0.325	20.081	0.106
Pyrene	8270C	(mg/kg)	U	U	0.045	0.102	0.383	32.506	0.086

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8270C - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	TP-008 10/24/2002	TP-009 10/24/2002	TP-009 10/24/2002	TP-010 10/24/2002	TP-010 10/24/2002
			SAMPLE DEPTH (ft@e)					
Benzo(a)anthracene	8270C	(mg/kg)		0.128	11.109	10.002	0.324	0.367
Benzo(a)pyrene	8270C	(mg/kg)		0.222	8.629	8.512	0.282	0.271
Benzo(b)fluoranthene	8270C	(mg/kg)		0.083	6.091	6.416	0.235	0.247
Dibenz(a,h)anthracene	8270C	(mg/kg)		U	2.088	0.734	U	U
1,2,4-Trichlorobenzene	8270C	(mg/kg)		U	U	U	U	U
2-Methylnaphthalene	8270C	(mg/kg)		U	0.27	0.734	U	U
Acenaphthene	8270C	(mg/kg)		U	1.622	2.087	0.031	U
Acenaphthylene	8270C	(mg/kg)		U	0.11	0.18	U	U
Anthracene	8270C	(mg/kg)		0.058	5.44	4.764	0.194	0.191
Benzo(ghi)perylene	8270C	(mg/kg)		0.133	3.614	3.56	0.164	0.145
Benzo(k)fluoranthene	8270C	(mg/kg)		0.176	8.86	8.266	0.195	0.056
Bis(2-ethylhexyl)phthalate(BEHP)	8270C	(mg/kg)		0.03	0.223	0.952	0.036	0.058
Carbazole	8270C	(mg/kg)		U	1.123	1.867	U	U
Chrysene	8270C	(mg/kg)		0.141	9.746	9.202	0.298	0.36
Dibenzofuran	8270C	(mg/kg)		U	1.125	1.428	U	U
Di-n-butyl phthalate	8270C	(mg/kg)		U	U	0.5	U	U
Di-n-octyl phthalate	8270C	(mg/kg)		U	U	U	U	U
Fluoranthene	8270C	(mg/kg)		0.255	19.327	U	0.383	0.045
Florence	8270C	(mg/kg)		0.027	2.375	2.463	0.035	0.047
Indeno(1,2,3-cd)pyrene	8270C	(mg/kg)		0.093	3.683	3.494	0.114	0.023
Phenanthrene	8270C	(mg/kg)		0.151	15.914	15.348	0.754	0.757

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 8270C - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	TP-008	TP-009	TP-009	TP-010	TP-010
CONSTITUENT	METHOD	UNITS	SAMPLE DEPTH (ft@g)	SAMPLE DATE:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
Pyrene	8270C	(mg/kg)			16.00	4.00	16.00	14.00	19.00
			0.251		16.55	U	0.623	0.659	
				SAMPLE LOCATION:	TP-012	TP-012			
				SAMPLE DATE:	10/24/2002	10/24/2002			
			SAMPLE DEPTH (ft@g):		4.00	4.00			
Benz(a)anthracene	8270C	(mg/kg)			U	U		U	U
Benz(a)pyrene	8270C	(mg/kg)			0.059	0.059		U	U
Benz(b)fluoranthene	8270C	(mg/kg)			U	U		U	U
Dibenz(a,h)anthracene	8270C	(mg/kg)			U	U		U	U
1,2,4-Trichlorobenzene	8270C	(mg/kg)			U	U		U	U
2-Methylnaphthalene	8270C	(mg/kg)			U	U		U	U
Acenaphthene	8270C	(mg/kg)			U	U		U	U
Acenaphthylene	8270C	(mg/kg)			U	U		U	U
Anthracene	8270C	(mg/kg)			U	U		U	U
Benz(ghi)perylene	8270C	(mg/kg)			U	U		U	U
Benz(k)fluoranthene	8270C	(mg/kg)			U	U		U	U
Bis(2-ethylhexyl)phthalate(BEHP)	8270C	(mg/kg)			0.054	0.054		0.046	0.046
Carbazole	8270C	(mg/kg)			U	U		U	U
Chrysene	8270C	(mg/kg)			U	U		U	U
Dibenzofuran	8270C	(mg/kg)			U	U		U	U
Di-n-butyl phthalate	8270C	(mg/kg)			U	U		U	U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



ANALYTICAL CHEMISTRY REPORT

Project No.: 006651

Page 16 of 16

## EPA Method 8270C - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	SAMPLE DEPTH (ft@e)	TP-012	TP-012
Di-n-octyl phthalate	8270C	(mg/kg)			4.00		16.00
Fluoranthene	8270C	(mg/kg)			U	U	U
Fluorene	8270C	(mg/kg)			0.039	U	U
Indeno(1,2,3- <i>cd</i> )pyrene	8270C	(mg/kg)			U	U	U
Phenanthrene	8270C	(mg/kg)			0.03	U	U
Pyrene	8270C	(mg/kg)			0.033	U	U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



**REPSG**  
React Environmental  
Professional Services Group, Inc.

Page 1 of 6

## ANALYTICAL CHEMISTRY REPORT

**FORMER SCHMIDT'S BREWERY**  
**NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA,PA**

### MATRIX: SOIL

#### METHODS:

EPA Method 160.3 - Total Residue by Drying Oven  
EPA Method 8082 - Polychlorinated Biphenyls (PCBs)

#### ANALYTICAL CHEMISTRY REPORT

#### EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	VB-001 01/05/2005	VB-002 01/05/2005	VB-003 01/05/2005	VB-004 01/05/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	7.00	7.00	7.00	8.00
				86.2	84.9	88.7	86.9
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	VB-006 01/05/2005	VB-007 01/05/2005	VB-008 01/05/2005	VB-009 01/05/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	8.00	8.00	8.00	8.00
				84.2	80.5	82.4	85.7
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	VB-011 01/05/2005	VB-012 01/05/2005	VB-013 01/05/2005	VB-014 01/05/2005
Total Solids		160.3 (%)	SAMPLE DEPTH (fbg):	9.00	9.00	9.00	9.00
				87	89.4	82.8	89.9
							86.6

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



React Environmental

Professional Services Group, Inc.

## ANALYTICAL CHEMISTRY REPORT

## EPA Method 160.3 - Total Residue by Drying Oven

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	VB-016	VB-017	VB-018	VB-019	VB-020
Total Solids		(%)	SAMPLE DEPTH (fbg):		01/05/2005	01/05/2005	01/05/2005	01/05/2005	01/05/2005
				9.00		9.00	9.00		9.00
				90		91.8	84.5	83.7	87.3
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	VB-PE-001	VB-PE-002	VB-PE-003	VB-PE-003A	VB-PE-003B
Total Solids		(%)	SAMPLE DEPTH (fbg):		04/26/2005	04/26/2005	04/26/2005	08/18/2005	08/18/2005
				10.00		10.00	10.00		11.50
				93		95.5	93.7		93.5
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	VB-PE-003C	VB-PE-003D	VB-PE-003E	VB-PE-004	VB-PE-005
Total Solids		(%)	SAMPLE DEPTH (fbg):		08/18/2005	08/18/2005	08/18/2005	04/26/2005	04/26/2005
				12.00		12.00	13.00		10.00
				91.5		90.9	96.2		92.1
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	VB-PE-006	VB-PE-007	VB-PE-008	VB-PE-009	VB-PE-010
Total Solids		(%)	SAMPLE DEPTH (fbg):		04/26/2005	04/26/2005	04/26/2005	04/26/2005	04/26/2005
				10.00		12.00	12.00		12.00
				93.6		95.1	95.5		92.7
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	VB-PE-011	VB-PE-012			
Total Solids		(%)	SAMPLE DEPTH (fbg):		04/23/2005	04/23/2005			
				12.00			12.00		
				94.5		95.3	95.3		

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 3 of 6

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	VB-001	VB-002	VB-003	VB-004
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<0.28U	<0.31U	<0.28U	<0.31U	<1.6UD	<0.79UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.28U	<0.31U	<0.28U	<0.31U	<1.6UD	<0.79UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.28U	<0.31U	<0.28U	<0.31U	<1.6UD	<0.79UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.28U	<0.31U	<0.28U	<0.31U	<1.6UD	<0.79UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.28U	<0.31U	<0.28U	<0.31U	<1.6UD	<0.79UD
PCB (Aroclor 1254)	8082	(mg/kg)	<0.28U	<0.31U	<0.28U	<0.31U	<1.6UD	<0.79UD
PCB (Aroclor 1260)	8082	(mg/kg)	<0.28U	<0.31U	<0.28U	<0.31U	5.1D	2.2D
PCB( Total Aroclors)	8082	(mg/kg)	<0.28U	<0.31U	<0.28U	<0.31U	5.1D	2.2D
SAMPLE DEPTH (ft@g)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	SAMPLE DATE:	VB-006	VB-007	VB-008	VB-010
PCB (Aroclor 1016)	8082	(mg/kg)	<5.8UD	<0.28U	<5.8UD	<3.2UD	<48UD	<4.2UD
PCB (Aroclor 1221)	8082	(mg/kg)	<5.8UD	<0.28U	<5.8UD	<3.2UD	<48UD	<4.2UD
PCB (Aroclor 1232)	8082	(mg/kg)	<5.8UD	<0.28U	<5.8UD	<3.2UD	<48UD	<4.2UD
PCB (Aroclor 1242)	8082	(mg/kg)	<5.8UD	<0.28U	<5.8UD	<3.2UD	<48UD	<4.2UD
PCB (Aroclor 1248)	8082	(mg/kg)	<5.8UD	<0.28U	<5.8UD	<3.2UD	<48UD	<4.2UD
PCB (Aroclor 1254)	8082	(mg/kg)	<5.8UD	<0.28U	<5.8UD	<3.2UD	<48UD	<4.2UD
PCB (Aroclor 1260)	8082	(mg/kg)	10D	1.3	13D	200D	16D	16D
PCB( Total Aroclors)	8082	(mg/kg)	10D	1.3	13D	200D	16D	16D

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC). Y- Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.: 006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 4 of 6

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	VB-011 01/05/2005	VB-012 01/05/2005	VB-013 01/05/2005	VB-014 01/05/2005	VB-015 01/05/2005
SAMPLE DEPTH (fbg)								
PCB (Aroclor 1016)	8082	(mg/kg)	<0.29U	<0.27U	<0.28U	<0.24U	<0.24U	<1.4UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.29U	<0.27U	<0.28U	<0.24U	<0.24U	<1.4UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.29U	<0.27U	<0.28U	<0.24U	<0.24U	<1.4UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.29U	<0.27U	<0.28U	<0.24U	<0.24U	<1.4UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.29U	<0.27U	<0.28U	<0.24U	<0.24U	<1.4UD
PCB (Aroclor 1254)	8082	(mg/kg)	<0.29U	<0.27U	<0.28U	<0.24U	<0.24U	<1.4UD
PCB (Aroclor 1260)	8082	(mg/kg)	0.40	<0.27U	<0.28U	0.42	0.42	6.4D
PCB( Total Aroclors)	8082	(mg/kg)	0.40	<0.27U	<0.28U	0.42	0.42	6.4D
SAMPLE DEPTH (fbg)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	VB-016 01/05/2005	VB-017 01/05/2005	VB-018 01/05/2005	VB-019 01/05/2005	VB-020 01/05/2005
PCB (Aroclor 1016)	8082	(mg/kg)	<0.22U	<0.32U	<0.28U	<0.34U	<0.34U	<0.29U
PCB (Aroclor 1221)	8082	(mg/kg)	<0.22U	<0.32U	<0.28U	<0.34U	<0.34U	<0.29U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.22U	<0.32U	<0.28U	<0.34U	<0.34U	<0.29U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.22U	<0.32U	<0.28U	<0.34U	<0.34U	<0.29U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.22U	<0.32U	<0.28U	<0.34U	<0.34U	<0.29U
PCB (Aroclor 1254)	8082	(mg/kg)	<0.22U	<0.32U	<0.28U	<0.34U	<0.34U	<0.29U
PCB (Aroclor 1260)	8082	(mg/kg)	<0.22U	<0.32U	<0.28U	1.5	<0.29U	<0.29U
PCB( Total Aroclors)	8082	(mg/kg)	<0.22U	<0.32U	<0.28U	1.5	<0.29U	<0.29U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.  $\leq$  = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 5 of 6

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	VB-PE-001 04/26/2005	VB-PE-002 04/26/2005	VB-PE-003 04/26/2005	VB-PE-003A 08/18/2005	VB-PE-003B 08/18/2005
SAMPLE DEPTH (ft@g)								
PCB (Aroclor 1016)	8082	(mg/kg)	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U
PCB (Aroclor 1221)	8082	(mg/kg)	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U
PCB (Aroclor 1244)	8082	(mg/kg)	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U	<0.050U
PCB (Aroclor 1260)	8082	(mg/kg)	0.063	0.063	0.050U	260D	<0.050U	0.058
PCB( Total Aroclors)	8082	(mg/kg)	0.063	0.063	0.050U	260D	0.089	0.058
SAMPLE DEPTH (ft@g)								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION: SAMPLE DATE:	VB-PE-003C 08/18/2005	VB-PE-003D 08/18/2005	VB-PE-003E 08/18/2005	VB-PE-004 04/26/2005	VB-PE-005 04/26/2005
PCB (Aroclor 1016)	8082	(mg/kg)	<0.20UD	<0.25UD	<0.10UD	<0.25UD	<0.25UD	<0.050U
PCB (Aroclor 1221)	8082	(mg/kg)	<0.20UD	<0.25UD	<0.10UD	<0.25UD	<0.25UD	<0.050U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.20UD	<0.25UD	<0.10UD	<0.25UD	<0.25UD	<0.050U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.20UD	<0.25UD	<0.10UD	<0.25UD	<0.25UD	<0.050U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.20UD	<0.25UD	<0.10UD	<0.25UD	<0.25UD	<0.050U
PCB (Aroclor 1244)	8082	(mg/kg)	<0.20UD	<0.25UD	<0.10UD	<0.25UD	<0.25UD	<0.050U
PCB (Aroclor 1260)	8082	(mg/kg)	0.52D	0.56D	0.33D	1.2D	<0.050U	<0.050U
PCB( Total Aroclors)	8082	(mg/kg)	0.52D	0.56D	0.33D	1.2D	<0.050U	<0.050U

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.



Project No.:006651

ANALYTICAL CHEMISTRY REPORT

## EPA Method 8082 - Polychlorinated Biphenyls

Page 6 of 6

CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	VB-PE-006 04/26/2005	VB-PE-007 04/26/2005	VB-PE-008 04/26/2005	VB-PE-009 04/26/2005	VB-PE-010 04/26/2005
SAMPLE DEPTH (ft@g):								
PCB (Aroclor 1016)	8082	(mg/kg)	<0.050U	<0.10UD	<0.050U	<0.10UD	<0.050U	<0.050U
PCB (Aroclor 1221)	8082	(mg/kg)	<0.050U	<0.10UD	<0.050U	<0.10UD	<0.050U	<0.050U
PCB (Aroclor 1232)	8082	(mg/kg)	<0.050U	<0.10UD	<0.050U	<0.10UD	<0.050U	<0.050U
PCB (Aroclor 1242)	8082	(mg/kg)	<0.050U	<0.10UD	<0.050U	<0.10UD	<0.050U	<0.050U
PCB (Aroclor 1248)	8082	(mg/kg)	<0.050U	<0.10UD	<0.050U	<0.10UD	<0.050U	<0.050U
PCB (Aroclor 1244)	8082	(mg/kg)	<0.050U	<0.10UD	<0.050U	<0.10UD	<0.050U	<0.050U
PCB (Aroclor 1260)	8082	(mg/kg)	<0.050U	0.24D	<0.050U	0.24D	<0.050U	6.6D
PCB( Total Aroclors)	8082	(mg/kg)	<0.050U	0.24D	<0.050U	0.24D	<0.050U	6.6D
SAMPLE DEPTH (ft@g):								
CONSTITUENT	METHOD	UNITS	SAMPLE LOCATION:	VB-PE-011 04/25/2005	VB-PE-012 04/23/2005	VB-PE-011 04/25/2005	VB-PE-012 04/23/2005	
PCB (Aroclor 1016)	8082	(mg/kg)	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.10UD
PCB (Aroclor 1221)	8082	(mg/kg)	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.10UD
PCB (Aroclor 1232)	8082	(mg/kg)	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.10UD
PCB (Aroclor 1242)	8082	(mg/kg)	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.10UD
PCB (Aroclor 1248)	8082	(mg/kg)	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.10UD
PCB (Aroclor 1244)	8082	(mg/kg)	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.83UD	<0.10UD
PCB (Aroclor 1260)	8082	(mg/kg)	3.1D	3.1D	3.1D	3.1D	3.1D	0.43D
PCB( Total Aroclors)	8082	(mg/kg)						

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N - Tentatively Identified Compound (TIC) also identified in Method Blank. # - MDL exceeds the reporting standard. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher.

Northern Liberties Development, LP  
July 29, 2008

Project Summary Report  
Former Schmidt's Brewery, 2<sup>nd</sup> Street and Girard Ave., Philadelphia, PA  
REPSG Project Reference No. 6651-02

---

**APPENDIX C – DISPOSAL DOCUMENTATION  
(SEE ATTACHED CD)**

#### **APPENDIX D – REPSG’S STANDARD OPERATING PROCEDURES**

---

## ***Standard Operating Procedure for Soil Sampling***

Page 1 of 3

### **Equipment Requirements:**

- Decontamination supplies
- Sample bottles
- Preservation supplies
- Shipping containers
- PDA
- Field documentation material

### **Procedures:**

#### ***1. Decontamination Procedures***

Non-aqueous matrix field sampling equipment cleaning and decontamination procedures are as follows:

1. Laboratory grade glassware detergent and tap water scrub to remove visual contamination.
2. Generous tap water rinse.
3. Distilled and de-ionized water rinse.

All sampling equipment is decontaminated prior to use, and field decontaminated between each separate sampling event.

#### ***2. Soil Sampling***

##### **1. Bucket Auger (to be used for: BNS, TPH, TOC, Acid Extractables)**

- a) Remove unnecessary non-soil material from the sampling point.
- b) Attach the bucket and handle to an extension rod.
- c) Continue boring until the desired depth is attained.
- d) Use a second decontaminated auger to collect the sample.
- e) Wearing new surgical gloves, transfer the sample using a decontaminated hand trowel, into an appropriate, labeled container.
- f) When collecting samples at depths greater than 12 inches, it is advisable to discard 1/2 inch of material on the top of the auger due to cave in.

##### **2. Soil Corer (to be used for Volatile Organics)**

- a) Insert collection tube into the sampler
- b) Remove unnecessary non-soil material from the sampling point.
- c) Attach the corer and handle to an extension rod.
- d) Continue boring until the desired depth is attained.
- e) Wearing new surgical gloves, remove the collection tube and transfer to a sample container.

---

## ***Standard Operating Procedure for Soil Sampling***

Page 2 of 3

### 3. Hand Trowel

- a) Clear surface debris
- b) Collect sample from 0-24 inches using a decontaminated hand trowel
- c) Wearing new surgical gloves, transfer the sample to the container

### 4. Backhoe Sampling

- a) Begin with a steam cleaned backhoe
- b) Operate the backhoe in a deliberate fashion removing <6 inches of soil per scoop
- c) Once selected depth is attained, steam clean backhoe bucket
- d) Excavate sample into bucket
- e) Wearing new surgical gloves, remove a sample, using a decontaminated hand trowel. The sample is obtained from the front of the bucket, in an area not in contact with the machinery surface.
- f) Place the sample into a decontaminated stainless steel bucket, and mix the sample to homogenize
- g) Place the homogenized sample into an appropriate, labeled sampling container.

### 5. Split Spoon Sampling

- a) Begin with decontaminated stainless steel split spoon sampler
- b) Advance Split Spoon to desired depth
- c) Wearing new surgical gloves, retrieve the sampler
- d) Split the sampler and retrieve the soil core
- e) Place the undisturbed soil core into an appropriate, labeled sampling container.

### 6. Manual Geoprobe

- a) Insert collection tube into the sampler
- b) Attach the corer and handle to an extension rod
- c) Insert coring point and primary extension rod
- d) Attach extension coupling, reverse- thread stopper, and anvil to the corer
- e) Hammer corer to desired depth and release the reverse-thread stopper
- f) Continue to hammer corer to collect soil matrix from desired depth
- g) Wearing new surgical gloves, remove the collection tube and transfer to a sample container
- h) Repeat decontamination procedures prior to re-use

### 7. EnCore™ Samplers

- a) Using T-handle, push sampler into soil until coring body is completely full
- b) Remove sampler form soil and wipe excess soil from coring body exterior
- c) Cap coring body while it is still on T-handle. Push and twist cap over bottom until grooves on locking arms seat over ridge on coring body. Cap must be seated to seal sampler.

---

### ***Standard Operating Procedure for Soil Sampling***

Page 3 of 3

- d) Remove the capped sampler from T-handle and lock plunger by rotating plunger rod counter clockwise until wings rest firmly against tab
- e) Attach completed label to cap on coring body and return encore to zipper bag
- f) Seal bag and put on ice

### **3. Sample Preservation and Transport**

1. Samples will be transferred from sampling devices to appropriately preserved and labeled sampling containers.
2. After they are packaged, samples will be placed into a cooler and maintained at 4°C immediately.
3. Samples will be delivered, within allowable holding times, with an appropriate chain of custody, to a state certified laboratory for analysis.<sup>1</sup>

---

<sup>1</sup> Sampling Protocol based on ASTM Standard D4700, Description and Sampling of Contaminated Soils: A Field Pocket Guide (EPA/625/12-91/002)



## ***GROUNDWATER SAMPLING PROTOCOL***

The following is the standard sampling procedure used by React Environmental Professional Services Group, Inc. for the purpose of sampling ground water from monitoring wells<sup>1</sup>.

### **Purging**

All equipment entering each of the wells is dedicated solely to that well. All equipment was decontaminated and handled with new surgical gloves throughout the sampling procedure.

Immediately prior to sampling, the technician records field measurements of indicator parameters such as: temperature, pH, specific conductance and dissolved oxygen. These parameters are measured in the purge water during purging until they stabilize. This is done to allow a representative sample of the aquifer to flow into the well.

### **Sample Collection**

All equipment and entering the well, and all sampling containers are safely stored away from potential sources of contamination during transportation. Surgical gloves are changed between each sample location.

### **Ground Water Sampling**

After evacuation of the required volume of water from the well, a representative ground water sample is developed. A decontaminated Teflon Bottom-Fill Check Valve Bailer is lowered in the well by using a new length of PTFE cord. The bailer is retrieved and the sample is transferred to the appropriate containers. Samples analyzed for volatile organic compounds are collected utilizing VOA samplers.

VOA samplers are inserted into the bottom of the bailer, allowing samples to be collected without induced volatilization through top of bailer sample collection techniques. Vials are filled, leaving no headspace or air bubbles, and sealed. All sample containers are labeled on-site and stored for transport to the lab.

---

<sup>1</sup> Sampling protocol developed in accordance with ASTM Standard D 4448.



**REPSG**

React Environmental  
Professional Services Group, Inc.

### ***MONITORING WELL INSTALLATION PROTOCOL***

The purpose of this standard operating procedure is to outline the methods used in the installation and removal of temporary monitoring wells. Language regarding sampling procedures is provided separate from this document. This SOP deals strictly with the installation and removal of Permanent Monitoring Well Points. This document was drafted based on design recommendations set forth by ASTM and the USEPA, including the following:

- **Environmental Investigations Standard Operating Procedure And Quality Assurance Manual, USEPA, 2001**
- **ASTM, Technical & Professional Training Manual, Standards Related to the Phase II Environmental Site Assessments Process, Version 3.0, Section D 5092-04, Standard Practice for Design and Installation of Ground water Monitoring Wells.**

The goals of this SOP are as follows:

- To ensure that the groundwater monitoring well will provide high quality samples.
- Ensure that the groundwater monitoring well is constructed properly and will last the duration of the Project.
- Ensure that the groundwater monitoring well will not serve as a conduit for contaminants to migrate between aquifers.

#### **Well Construction Materials**

- Hollow-Stem Auger (or)
- Solid-Stem Auger (or)
- drill pipe (or stem) with appropriate drilling bit (or)
- Potable water (previously analyzed for constituents)
- Sand (filter pack)
- Cement grout
- Bentonite Pellet Seal (Plug)
- Standard 14 type WC (Well Casing)
- Steel piping (bumper guards)
- PVC Piping
- Paint

#### **Equipment**

- Purging pump
- String
- Disposable bailers and tips
- Water level interface probe.
- Power source
- Clean disposable gloves
- Carbon Filter
- Decontamination solution
- Clean buckets
- U-22 or U-10 multi parameter water analyzer



**REPSG**

React Environmental  
Professional Services Group, Inc.

The design and installation of permanent monitoring wells involves drilling into various types of geologic formations that exhibit varying subsurface conditions. Each permanent groundwater monitoring well should be designed and installed to function properly throughout the duration of the monitoring program. When designing monitoring wells, the following should be considered:

- Short-and long-term objectives;
- Purpose(s) of the well(s);
- Probable duration of the monitoring program;
- Contaminants likely to be monitored;
- Types of well construction materials to be used;
- Surface and subsurface geologic conditions;
- Properties of the aquifer(s) to be monitored;
- Well screen placement;
- General site conditions; and
- Potential site health and safety hazards.

### **Drilling Methods**

The following drilling methods are listed in general order of preference; however, final selection should be based on actual site conditions. In all cases, the proper field QA/QC procedures should be initiated before and during drilling to minimize the potential for contamination.

#### Hollow-Stem Auger

This method is best suited in soils that have a tendency to collapse when disturbed. Boreholes can be augered to depths of 150 feet or more (depending on the auger size), but generally boreholes are augered to depths less than 100 feet.

#### Solid-Stem Auger

This auger method is used in cohesive and semi-cohesive soils that do not have a tendency to collapse when disturbed. Minimizing the risk of cross contamination is one of the most important factors to consider when selecting the appropriate drilling method(s) for a project.

#### Rotary Methods

These methods consist of a drill pipe or drill stem coupled to a drilling bit that rotates and cuts through the soils. In any of the rotary (or sonic) methods, care must be exercised in the selection and use of compounds to prevent galling of drill stem threads.

#### Water Rotary

When using water rotary, potable water (that has been analyzed for contaminants of concern) should be used. Generally, a large majority of the drilling water will be recovered during well development.



### Air Rotary

Air rotary drilling uses air as a drilling fluid to entrain cuttings and carry them to the surface.

### **Borehole Construction**

#### Annular Space

The borehole or hollow stem auger should be of sufficient diameter so that well construction can proceed without major difficulties.

#### Overdrilling the Borehole

Sometimes it is necessary to overdrill the borehole so that any soils that have not been removed or that have fallen into the borehole, will fall to the bottom of the borehole below the depth where the filter pack and well screen are to be placed. Normally, 3 to 5 feet is sufficient for overdrilling.

#### Filter Pack Placement

When placing the filter pack into the borehole, a minimum of 6-inches of the filter pack material should be placed under the bottom of the well screen to provide a firm footing and an unrestricted flow under the screened area.

#### Filter Pack Seal-Bentonite Pellet Seal (Plug)

Where neat cement grouts are to be used, the placement of a bentonite pellet seal above the filter pack is mandatory to prevent the possibility of grout infiltration into the screened interval prior to setting.

#### Grouting the Annular Space

The annular space between the casing and the borehole wall should be filled with either a 30% solids bentonite grout, a neat cement grout, or a cement/bentonite grout.

#### Above Ground Riser Pipe and Outer Protective Casing

The well casing, when installed and grouted, should extend above the ground surface a minimum of 2.5 feet. An outer protective casing should be installed into the borehole after the annular grout has cured for at least 24 hours.

#### Concrete Surface Pad

A concrete surface pad should be installed around each well at the same time as the outer protective casing is being installed

#### Surface Protection-Bumper Guards

If the monitoring wells are located in a high traffic area, a minimum of three bumper guards consisting of steel pipes 3 to 4 inches in diameter and a minimum 5-foot length should be installed.



## Well Installation

The borehole should be bored, drilled, or augered as close to vertical as possible, and checked with a plumb bob or level. Deviation from plumb should be within 1° per 50ft of depth. Slanted boreholes will not be acceptable unless specified in the design. The well casings should be secured to the well screen by flush-jointed threads and placed into the borehole and plumbed by the use of centralizers and/or a plumb bob and level.

If the augers are not gradually extracted, the materials (sand, pellets, etc.) will accumulate at the bottom of the augers causing potential bridging problems. After the string of well screen and casing is plumb, the filter material should then be placed around the well screen (by the tremie method in open boreholes) up to the designated depth. After the filter pack has been installed, the bentonite pellet seal (if used) should be placed directly on top of the filter pack to an unhydrated thickness of two feet. When installing the seal for use with neat cement grouts, the bentonite pellet seal should be allowed to hydrate a minimum of eight hours or the manufacturer's recommended hydration time, whichever is longer. After the pellet seal has hydrated for the specified time, the grout should then be pumped by the tremie method into the annular space around the casings up to within 2 feet of the ground surface. The grout should be allowed to set for a minimum of 24 hours before the surface pad and protective casing are installed. After the surface pad and protective casing are installed, bumper guards should be installed (if needed).

After the wells have been installed, the outer protective casing should be painted with highly visible enamel paint. The wells should be permanently marked with the well number, date installed, site name, elevation, etc., either on the cover or an appropriate place that will not be easily damaged and/or vandalized. Flush mounted traffic and man-hole covers are designed to extend from the ground surface down into the concrete plug around the well casing. The flush mounted covers should be installed as far above grade as practical to minimize standing water and promote runoff. Permanent identification markings should be placed on the covers or in the concrete plug around the cover. Expansive sealing plugs may be used in the well riser to prevent infiltration of any water that might enter the flush cover

### Double Cased Wells

Double cased wells should be constructed when there is reason to believe that interconnection of two aquifers by well construction may cause cross contamination, and/or when flowing sands make it impossible to install a monitoring well using conventional methods.

### Bedrock Wells

The installation of monitoring wells into bedrock can be accomplished in two ways:

1.
  - Drill or bore a pilot borehole through the soil overburden into the bedrock. An outer casing is then installed into the borehole by setting it into the bedrock, and grouting it into place as described in the previous section.
  - If the seal leaks (detected by pressure testing) and/ or the core is cracked or shattered, or if no core is recovered because of washing, excessive down pressure, etc., the seal is not acceptable.



Any proposed method of double casing and/or seal testing will be evaluated on its own merits, and will have to be approved by a senior field geologist before and during drilling activities,

2.

- Install the outer surface casing and drill the borehole (by an approved method) into bedrock, and then install an inner casing and well screen with the filter pack, bentonite seal, and annular grout. The well is completed with a surface protective casing and concrete pad.

## **Well Construction Materials**

### Introduction

Well construction materials are chosen based on the goals and objectives of the proposed monitoring program and the geologic conditions at the site(s). In this section, the different types of available materials will be discussed.

### Well Screen and Casing Materials

EPA document EPA/540/S-95/503, Nonaqueous Phase Liquids Compatibility with Materials Used in Well Construction, Sampling, and Remediation should be used for guidance in this area and in the use of PVC with Nonaqueous Phase Liquids (NAPLs).

One concern is to select materials that will be rugged enough to endure the entire monitoring period. Site conditions will generally dictate the kind of materials that can be used. A preliminary field investigation should be conducted to determine the geologic conditions, Superfund site material requirements are listed in order of preference:

- (1) Stainless Steel (304 or 316)
- (2) Rigid PVC meeting NSF Standard 14 (type WC)
- (3) Other (where applicable)

### Filter Pack Materials

The filter pack materials should consist of clean, rounded to well-rounded, hard, insoluble particles of siliceous composition. The required grain-size distribution or particle sizes of the filter pack materials should be selected based upon a sieve analysis conducted on the soil samples collected from the aquifer materials and/or the formation(s) to be monitored

### Filter Pack and Well Screen Design

The majority of monitoring wells are installed in shallow ground water aquifers that consist of silts, clays, and sands in various combinations. Modifications to the procedures used for the design of water well filter packs may be required.

Before designing the filter pack and well screen, the following factors should be considered:

1. Select the well screen slot openings that will retain 90 percent of the filter pack material.
2. The filter pack material should be of the size that minimizes head losses.



3. A filter material of varying grain sizes is not acceptable because the smaller particles fill the spaces between the larger particles.
4. The filter pack design is based on the gradation of the finest aquifer materials being analyzed.

### **Well Development**

A newly completed monitoring well should not be developed for at least 24 hours after the surface pad and outer protective casing are installed. A new monitoring well should be developed until the column of water in the well is free of visible sediment, and the pH, temperature, turbidity, and specific conductivity have stabilized. The following development procedures, listed in increasing order of the energy applied to the formation materials, are generally used to develop monitoring wells:

1. Bailing
2. Pumping/overpumping
3. Surging
4. Backwashing ("rawhiding")
5. Jetting
6. Compressed air (with appropriate filtering): airlift pumping and air surging

### **Safety Procedures for Drilling Activities**

A site health and safety plan should be developed and approved by the Project Manager or designee prior to any drilling activities, and should be followed during all drilling activities.

Northern Liberties Development, LP  
July 29, 2008

Project Summary Report  
Former Schmidt's Brewery, 2<sup>nd</sup> Street and Girard Ave., Philadelphia, PA  
REPSG Project Reference No. 6651-02

---

**APPENDIX E – NTH GEOTECHNICAL REPORT, SOIL BORING LOGS,  
AND WELL INSTALLATION LOGS  
(SEE ATTACHED CD)**

Northern Liberties Development, LP  
July 29, 2008

Project Summary Report  
Former Schmidt's Brewery, 2<sup>nd</sup> Street and Girard Ave., Philadelphia, PA  
REPSG Project Reference No. 6651-02

---

**APPENDIX F – LABORATORY ANALYTICAL DATA PACKAGES  
(SEE ATTACHED CD)**

Northern Liberties Development, LP  
July 29, 2008

Project Summary Report  
Former Schmidt's Brewery, 2<sup>nd</sup> Street and Girard Ave., Philadelphia, PA  
REPSG Project Reference No. 6651-02

---

**APPENDIX G – PRIOR REPORTING  
(SEE ATTACHED CD)**

Northern Liberties Development, LP  
July 29, 2008

Project Summary Report  
Former Schmidt's Brewery, 2<sup>nd</sup> Street and Girard Ave., Philadelphia, PA  
REPSG Project Reference No. 6651-02

---

## **APPENDIX H – PROPOSED SITE REDEVELOPMENT PLAN**